MENTAL HEALTH AND PHYSICAL ACTIVITY IN RECOVERY

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ABSTRACT

Despite sound evidence in support of mental health benefits through physical activity, little is known about the process of psychological change. Various psychosocial factors, such as autonomy, social relations, competence, and distraction, have been proposed as a possible explanation for psychological change but little research has been conducted in clinical settings where change is most likely. This research therefore investigated the question of how does mental health change occur among people with, or at risk of, mental health problems.

The first study explored mental health and well-being in relation to personality among forty cardiac patients hospitalised following a heart attack and forty members of a cardiac rehabilitation exercise group. A personality profile based on harm avoidance and self-directedness scores was significantly related to anxiety, depression, and satisfaction with life. Among a follow-up sample (n=23), physical activity prior to hospitalisation positively correlated with attendance at rehabilitation (r=.61) and negatively correlated with depression (r=-.67) at follow-up.

The second study used a qualitative case-study approach to retrospectively examine the experiences of four men with severe and enduring mental illness who were participating in regular physical activity. Three data sources were utilised: (i) interviews with clients and mental health professionals; (ii) analysis of medical records; (iii) participant observation. An intrinsic case-study analysis resulted in findings and interpretations concerning each individual case which are presented in the form of realist tales and ethnographic fictions. A confessional tale takes an overview of the four cases to discuss some issues specifically relevant to conducting research with people with severe and enduring mental illness. Finally, a cross-case analysis takes an instrumental case-study approach to synthesise the findings from the four cases. Through this analysis, a seven-stage sequence model is proposed to account for the chronological process of mental health and physical activity changes among the four participants.

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Today, like every other day, we wake up empty
and frightened. Don't open the door to the study
and begin reading. Take down a musical instrument.

Let the beauty we love be what we do.
There are hundreds of ways to kneel and kiss the ground.

Jelaluddin Rumi

The most important thanks from me go to the participants of this research. In particular, Ben, Colin, Mark, and Shaun selflessly gave of their time and shared with me their stories. Their experiences helped me to learn not only academically, but personally too.

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AUTHOR'S DECLARATION

I declare that the work in this dissertation was carried out in accordance with the Regulations of the University of Bristol. The work is original except where indicated by special reference in the text and no part of the dissertation has been submitted for any other degree.

Any views expressed in the dissertation are those of the author and in no way represent those of the University of Bristol.

The dissertation has not been presented to any other University for examination either in the United Kingdom or overseas.

Signed: ..... J Caless .....

Date: ..... 19 September 2003 .....

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RELATED PUBLICATIONS

Carless, D. & Fox, K.R. (2003). The future's looking bright. Short story published on FEPSAC conference CD-ROM, Copenhagen, Denmark.

Carless, D. & Fox, K.R. (2003). The physical self. In Everett, T., Donaghy, M., & Feaver, S. (Eds.) Interventions for mental health. Edinburgh: Butterworth-Heinemann.

Carless, D. & Faulkner, G. (2002). Physical activity and mental health. In McKenna, J. & Riddoch, C. (Eds.) Perspectives on health and exercise. New York: Palgrave.

Carless, D. & Fox, K.R. (2001). Exercise reaps benefits for cardiac patients. Health & Aging, February 2001.

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Fox, K.R. & Carless, D. (2000). Moving the body to change the mind: Exercise for psychological well-being. FitPro. February 2000.

RELATED PRESENTATIONS

Carless, D. & Fox, K.R. (July 2003). The future's looking bright: Psychological benefits of physical activity in people with schizophrenia. Paper presented at FEPSAC conference, Copenhagen, Denmark.

Faulkner, G. & Carless, D. (July 2003). Mechanisms: Exploring the dodo bird effect. Paper presented at FEPSAC conference, Copenhagen, Denmark.

Carless, D. (July 2003). The long run. Short story presented in Professor Andrew Sparkes' workshop on alternative forms of representation at FEPSAC conference, Copenhagen, Denmark.

Carless, D. & Fox, K.R. (July 2001). Temperament and character in cardiac rehabilitation. Poster presented and British Psychological Society conference, London, UK.

Carless, D. & Treasure, D.C. (August 2000). Feeling state responses to resistance training and cycling in sedentary women. Poster presented at British Association for Sport and Exercise Sciences conference, Liverpool, UK.

INTRODUCTION

Increasingly over the past two decades research evidence, anecdotal accounts, and stories of personal experience have indicated that positive psychological effects can result from participation in physical activity. A range of effects, it seems, are possible for different people through diverse forms of physical activity. These may include, for example, spontaneous 'feel good' effects in a recreational footballer, the psychological 'highs' of a dedicated athlete, improved day-to-day mental well-being among members of a community aerobics group, better stress management in a career-driven executive who attends the gym, reduced depression in a mental health service user who begins running, or increased quality of life for a person with a serious illness who joins a countryside walking group. The permutations and combinations of benefits, activities, and individuals appear to be endless. Increasingly, it seems, there is potential for the experience of psychological benefits that range from simple 'right now' enjoyment through short-term relief from daily stresses, an on-going sense of satisfaction and purpose, to even a life-changing shift following a critical life event. There appear to be few concrete ties between specific activities, benefits, and individuals – a group of people doing the same activity in the same way will probably experience different types and levels of psychological responses. In short, there is no formula.

Although evidence exists in support of the occurrence of psychological benefits for *some* people, *some* of the time we don't yet know who will benefit, from what, or in what way. Put simply, we don't understand much about the *process* of psychological change through physical activity at the individual level. The wide variability in terms of individuals, psychological responses, and exercise contexts make it unlikely that a single all-inclusive explanation will ever be found. When it comes to the individual exerciser, it is likely that a complex web of factors interact to determine both the exercise 'prescription' that will provide benefits as well as the specific benefits, if any, they experience.

An approach to studying the psychological benefits of physical activity

These points have implications for *how* we might try to understand the physical activity and mental health relationship. First, we might start by considering the

individual. It follows that, if benefits are individual-specific, we should examine processes at an individual level to understand how change occurs. Second, we might be open to the diverse *range* of experiences that are available through participation in physical activity. These could include, for example, physical factors such as fitness improvement, social factors such as group membership, educational factors such as achievement through learning new skills, or psychological factors such as increased personal control. Third, we might focus on settings where change is occurring. It is difficult to learn about change where no change takes place. Therefore, as Fox (2000a) has recommended, appropriate foci include those who are experiencing, have experienced, or are likely to experience change.

The initial plan for this research project was to investigate these questions with a specific focus on clinical populations. My goal for the research was a better understanding of the mental health effects of physical activity participation for those who were experiencing or recovering from a major health problem. This goal was based on a desire to better understand mental health change in those who need the improvement most urgently: individuals with, or at risk of, a mental health problem. The fundamental question in my mind, therefore, was: How does psychological change through physical activity occur for people who have (or are at risk of) a mental health problem?

An approach to reporting this study

Perhaps, as an inevitable consequence of working in the human sciences, the research did not progress entirely as planned. In fact, it has taken many twists and turns along the way. These twists and turns include problems such as gaining access to vulnerable participants in the medical world; measurement difficulties; time delays through negotiations over ethics and methods; personal learning and re-direction through reading, conversation, and courses which encouraged my consideration of alternative methods, philosophies, and styles of presentation; and, of course, mistakes. Mistakes that were, with the benefit of hindsight, a necessary part of the learning process. Rather than omit these experiences from the research report, I have chosen to include these 'impacts with reality' in my account as they constitute an essential element of the research process.

One consequence of this decision is a possible disruption to the smooth flow of this report that may be noticed by readers more familiar with traditional scientific reports. The twists and turns that this research has taken eliminate, in my view, the possibility of a straightforward, traditional, 'scientific' account – this research simply does not hang together that neatly. Therefore, I have chosen to present this research as a *journey* because, in essence, that is exactly what it has been. Hence, I have attempted to organise this report in a way that reflects the key elements of my research journey as it unfolded. Some parts of the journey, and hence the report, fit closely with the traditional, positivistic approach of most quantitative research. Others don't. Because these changes may be perceived by readers as disjointed, I feel it is useful at this point to 'smooth the bumps' by briefly outlining the organisation of this report.

Chapter one, mental health and physical activity, sets the scene for the research. A background of mental health and illness is provided, existing evidence for the mental health benefits of physical activity is briefly reviewed, potential explanations for psychological changes through exercise are examined, and some alternative explanations are discussed. Chapter two presents a traditional scientific report of the first study, a preliminary quantitative investigation of mental health and personality following a cardiac event and subsequent rehabilitation. Included in the discussion are some reflections on the practical difficulties I faced in gaining access to a mental health population which provide a rationale for the shift in research direction towards a cardiac population. The chapter concludes with some further reflections on the methods of inquiry used in the cardiac study and their appropriateness for use in a mental health setting before discussing some personal changes in research philosophy and the implications of these changes. Chapters three through eight present the main body of research which comprises four case studies of individuals with severe and enduring mental health problems who experienced psychological benefits through physical activity participation. These chapters draw on three forms of representation: realist tales, ethnographic fictions, and a confessional tale (Sparkes, 2002; Van Maanen, 1988).

CHAPTER ONE
MENTAL HEALTH AND PHYSICAL ACTIVITY

Mental health problems in many Western countries have increased in recent years to the point that traditional treatment provision is over-stretched. Forecasts suggest that this trend will continue and, by 2020, it is estimated that depression will be the second leading cause of disability worldwide (World Health Organisation, 2001). The growing prevalence of mental illness and subsequent need for effective interventions has been recognised as a high national health priority in the Department of Health document *A National Service Framework for Mental Health* (Department of Health, 2000). This climate has generated interest in alternative strategies for the promotion of mental health and well-being in addition to the development of improved interventions for tackling mental illness. The potential of physical activity to improve mental health has been one area which has received increasing research attention. Several hundred studies have now been conducted to investigate the psychological consequences of physical activity participation in various populations, forms, and environments. A number of extensive reviews have provided comprehensive summaries of the body of evidence (e.g. Biddle, Fox, & Boutcher, 2000; Morgan, 1997a). Rather than duplicate existing reviews, this chapter presents some key issues in physical activity and mental health research to set the scene for the studies which follow. Following a summary of current consensus, I will focus specifically on pressing research issues concerning the psychological effects of exercise for people with, or at high risk of, a mental illness.

1.1 MENTAL HEALTH AND MENTAL ILLNESS

The terms *mental health* and *mental illness* are often used interchangeably although they are quite distinct. According to the Health Education Authority (1997), mental health is the emotional and spiritual resilience which enables us to enjoy life and to survive pain, disappointment and sadness. It is a positive sense of well-being and an underlying belief in our own and others' dignity and worth. Mental illness is defined as any health condition where alterations in thinking, mood, or behaviour are associated

with distress and/or impaired function (United States Department of Health and Human Services, 1999). This distinction has implications for the potential role of physical activity as, Burbach (1997) suggests, strategies to improve mental health in the general population may be quite different from those needed to treat a diagnosed mental illness.

The separation of the concepts of mental health and mental illness also has an important practical implication: It allows a person with a diagnosed mental illness to still achieve positive mental health. The volume of research focussing on the alleviation of illness or disorder heavily outweighs that which focuses on the possibility of an individual with a psychiatric illness achieving health or wellness (Bryne, Brown, Voorberg, & Schofield, 1994). Recently, research has also begun to focus on the positive aspects of mental health – among those with or without mental disorder (e.g. Seligman & Csikszentmihalyi, 2000). This perspective is very much in line with the current more holistic conceptions of health and well-being espoused by policy documents. The Department of Health (1999), for example, recognises the importance of mental health by identifying it as one of four key health outcomes in the national health contract which states that a national strategy "must reflect more than just the absence of physical disease and be a basis for efforts which acknowledge a more rounded idea of good health."

Fox, Boutcher, Faulkner and Biddle (2000) outline five reasons why physical activity may be an effective mental health strategy. First, exercise is cost-effective – it is relatively inexpensive to deliver. Second, in contrast to pharmacological interventions, exercise is associated with minimal adverse side-effects. Third, exercise can be indefinitely sustained by the individual unlike pharmacological and psychotherapeutic treatments which often have a specified endpoint. Fourth, many other non-drug treatments (such as cognitive behavioural therapy) are expensive and therefore often in short supply while many patients report a reluctance to take medication (Scott, 1996). Physical activity may be a cost-effective alternative for those who prefer not to use medication or who cannot access therapy. Finally, regardless of whether physical activity provides a psychological benefit, it has clear physical health benefits and should therefore be promoted on this basis. Physical activity stands apart from more traditional treatments and therapies for mental health problems because it has the potential to simultaneously improve health and well-being *and* tackle mental illness.

1.2 EVIDENCE FOR THE MENTAL HEALTH BENEFITS OF PHYSICAL ACTIVITY

Fox (1999) suggests the evidence for the mental health effects of physical activity be considered in four distinct areas:

1. To prevent the onset of mental health problems
2. As treatment or therapy for existing mental disorders
3. To improve quality of life and coping among people with mental health problems
4. To improve the positive mental health and well-being of the general population.

Physical activity for prevention

Reviewers agree that lower instances of mental health problems are found among people who regularly participate in physical activity (Biddle et al., 2000; Morgan, 1997a). However, this association does not in itself imply that physical activity prevented the development of mental health problems. Prospective epidemiological research is required in order to conclude with confidence that regular exercise participation directly reduces the risk of mental health problems. Because studies of this kind are expensive and time-consuming to carry out, few have been conducted. However, Mutrie (2000) reviews four longitudinal studies which examined the effect of regular physical activity on the incidence of depression at follow-up several years later. In all four studies, people who were more active at baseline reported a lower incidence of depression at follow-up. These studies suggest a relative risk of 1.7 for the inactive reporting depression at a later date. Mutrie concludes that current evidence indicates physical activity has a protective effect against the development of depression. It may also be that exercise offers some degree of anxiety protection on the basis of Taylor's (2000) conclusion that aerobically fit individuals generally have a reduced physiological response to psychosocial stressors. More research is required to investigate the extent that physical activity may be effective in preventing the onset of other types of mental health problems.

Physical activity as treatment

Physical activity is emerging as an effective treatment or adjunct for directly tackling existing mental health problems in clinical populations. Currently, the strongest

evidence concerns the use of physical activity as a treatment for depression (Brosse, Sheets, Lett, & Blumenthal, 2002; Craft & Landers, 1998; Lawlor & Hopker, 2001; O'Neal, Dunn, & Martinsen, 2000) and at least one review has found support for a causal link between physical activity participation and decreased depression (Mutrie, 2000). Meta-analyses show an effect size of between 0.53 and 0.72 for exercise on depression and studies generally report a comparable level of effect on depression as obtained through other psychotherapeutic interventions (Craft & Landers, 1998; Mutrie, 2000). However, Lawlor and Hopker (2001) question the confidence we should place on these findings as a result of methodological weaknesses in research design. For example, while reductions on objective measurement tools (e.g., the Beck Depression Inventory) may be reported, studies rarely examine the practical and clinical significance of such changes concerning factors such as medication use, number of GP visits or social functioning (Fox, 1999).

In terms of anxiety, evidence generally supports the existence of small to moderate effects ranging from 0.23 to 0.69 through physical activity participation for both trait and state anxiety (Taylor, 2000). O'Connor, Raglin, and Martinsen (2000) reported that physical activity may be particularly effective for reducing symptoms of panic disorder. Although Taylor (2000) concluded that exercise has a small to moderate anxiety reducing effect, he noted that the strongest effects were found in the best-designed studies. At present, little evidence exists concerning the effects of physical activity on other mental health disorders, although it has been reported that exercise can alleviate certain symptoms of psychoses such as schizophrenia (Faulkner & Biddle, 1999) and may be a useful adjunctive strategy for drug and alcohol rehabilitation (see Biddle & Mutrie, 2001).

Physical activity for quality of life and coping with mental disorders

Among people with enduring mental health problems, improved quality of life tends to enhance the individual's ability to cope with and manage their disorder. Physical activity has the potential to improve quality of life in people with mental health problems through two routes: physical and psychological. In terms of physical quality of life, we know that individuals with mental health problems have the same physical health needs as the general population. In certain clinical populations the physical health problems seen in the general population (such as obesity, hypertension, and low cardiovascular fitness) are exacerbated by the negative side-effects of commonly

prescribed medications. This is a particularly serious problem for people with schizophrenia where the weight gain associated with antipsychotic medication can discourage treatment compliance (Green, Patel, Goisman, Allison, & Blackburn, 2000). Because physical activity is an effective method of improving important aspects of physical health such as obesity, cardiovascular fitness, and hypertension (Bouchard, Shepherd, & Stephens, 1994), it should be promoted to people with mental health problems for both general physical health and to counteract the side-effects of medication.

Preliminary evidence (e.g. Faulkner & Sparkes, 1999) also suggests that regular physical activity improves positive aspects of mental health (such as psychological quality of life and emotional well-being) in people with mental disorders. For example, for people with schizophrenia, thought disorganisation such as delusions and hallucinations can prevent effective function on a day-to-day basis. Additionally, secondary symptoms such as social withdrawal, depression and low self-esteem are common. Although physical activity participation may not affect schizophrenia *per se*, it may alleviate some symptoms and hence improve overall quality of life (Faulkner & Biddle, 1999). Improved quality of life is therefore particularly important for individuals with severe and enduring mental health problems when complete remission may be unrealistic (Faulkner & Sparkes, 1999).

Physical activity to improve mental well-being in the general population

Participation in physical activity and exercise is consistently associated with positive affect and mood (Biddle, 2000). This relationship has been found in large population surveys and experimental studies. It would appear that exercise does 'make you feel good'. Besides being a valuable outcome in its own right, feeling good is also an important motivating factor to encourage adherence to exercise. The feel good phenomenon is also supported by the finding that single bouts of exercise have a small to moderate effect on state anxiety (Taylor, 2000). It has also been suggested that exercise may delay declines in cognitive functioning although measurement difficulties continue to hinder research in this area (Boutcher, 2000).

Improvements in self-esteem and self-perceptions are further benefits that may be experienced by the general population through exercise participation. Self-esteem is

often regarded as the single most important indicator of psychological well-being so any improvements in this area may be particularly significant. High self-esteem is associated with a number of important life adjustment qualities whereas low self-esteem is associated with poor health behaviour decisions and is characteristic of mental disorders such as depression (Fox, 1997). A recent meta-analysis of studies examining the impact of exercise on self-esteem found a weak positive effect size of 0.22 (Spence & Poon, 1997). However, given the vast array of factors across diverse life experiences that influence global self-esteem, it is probably optimistic to expect exercise participation to independently increase global self-esteem in all cases. Recent research has begun to employ multidimensional measures of self-perceptions (such as the Physical Self-Perception Profile; Fox, 1990) and found convincing evidence for the positive effects of exercise on physical self-perceptions. In a recent review of studies utilising multidimensional measurement techniques, Fox (2000b) concluded that exercise promotes physical self-worth and other important physical self-perceptions such as improved body image. In specific contexts, and for certain individuals, it appears that improvements in the physical domain may generalise to global self-esteem. However, improved physical self-worth is a valuable outcome, regardless of whether improvements in global self-esteem occur as direct links have been shown between physical self-worth and mental health independent of global self-esteem (Sonstroem & Potts, 1996). Current consensus supports a strong link among the general population between physical activity participation and numerous domains of psychological health and well-being.

Exercise prescription for psychological benefits

Sufficient research evidence does not yet exist to enable exercise prescription recommendations to be made for specific mental health settings in terms of mode, intensity, or duration. The depression and anxiety literature currently provides the most insight into these questions as the largest amount of research has been conducted in these areas. In terms of exercise mode, current evidence suggests that psychological benefits are possible through a diverse range of activities; improvements have been found through both aerobic (e.g. running, walking) and non-aerobic (e.g. weight training) exercise (see Leith, 1994; Morgan, 1997a). There are also, increasingly, reports of psychosocial benefits from sports activities such as five-a-side football (Barraclough, 2002; Carter-Morris & Faulkner, unpublished manuscript; O'Kane &

McKenna, 2002; Pringle, 2002). From the perspective of intensity and duration, moderate intensity exercise (60-75 per cent maximal heart rate) with a typical prescription of three times per week for 20-60 minutes is recognised as the safest recommendation for most individuals (Bouchard et al., 1994) although other prescriptions may also be effective. It is clear that higher levels of intensity do not necessarily lead to better results but tend to threaten maintained participation. A key point is that the exercise prescription of choice (in terms of mode, intensity, and duration) is one that is acceptable to the individual thereby encouraging continued participation – psychological benefits can only be expected to occur while exercise participation is maintained.

1.3 EXPLANATIONS FOR PSYCHOLOGICAL CHANGE

Although identification of associative relationships and subsequently the demonstration of causation through experimental trials provide evidence of a mental health effect, it is also important to identify the mechanisms through which these effects occur. It is necessary to explain how, why, and under what conditions psychological changes occur in order to reliably prescribe and manage exercise provision across the range of mental health contexts. Currently studied mechanisms for mental health change through physical activity are generally seen to fall into one of three perspectives: biochemical, physiological, or psychological. A summary of these mechanisms is provided in Table 1.1.

At present no single mechanism adequately explains the diverse range of mental health effects that may be experienced through physical activity participation. A lack of precise understanding is not unique to physical activity interventions. Although anti-psychotic medications, for example, are widely accepted and prescribed, the biochemical basis for action for some drugs is not yet understood (Gerlach & Peacock, 1995). Similarly, it has proved difficult to pin down the specific processes through which psychotherapies and behavioural therapies operate (Garfield, 1998).

Table 1.1: Plausible mechanisms for mental health change through physical activity

Mechanism	**Background and research evidence**
	Biochemical
Opioids	ß-endorphins have been the focus of media attention on the feelings of euphoria reported by some exercisers. Endogenous opioid peptides found in the blood during and following exercise have been linked to this response in some research (e.g., Wildman, Kruger, Schmole, Niemann, & Mattheei, 1986) while other studies have questioned this relationship (e.g., Hatfield, Goldfarb, Sforzo, & Flynn, 1987). For a detailed review of this proposed mechanism see Hoffmann (1997).
Monoamines	Changes in levels of central monoamines such as serotonin have been found in response to physical activity participation (Chaouloff, 1989). This finding is interesting because central serotonergic systems are also altered by many antidepressant and anxiolytic medications (Blier & De Montigny, 1994). However, according to Chaouloff (1997), insufficient research has been conducted at present to allow a firm conclusion on the precise role of monoamines in psychological change through physical activity.
Norepinephrine	Several researchers have suggested that norepinephrine neurons may explain changes in depression and anxiety through physical activity (Morgan, 1985; North, McCullagh, & Tran, 1990; Petruzzello, Landers, Hatfield, Kubitz, & Salazar, 1991; Ransford, 1982). However, in a comprehensive review, Dishman (1997) suggests that methodological problems have prevented full exploration of this mechanism in the physical activity context and that further research is necessary "to realise a truly enlightened and developed model" (p.212).
	Physiological
Improved cardiovascular and muscle function	Individuals who engage in regular physical activity can experience benefits in both physical and psychological health (Bouchard et al., 1994). The co-occurrence of improved physical fitness and psychological change has led some researchers to propose that improvements in cardiovascular and muscle function may be responsible for *causing* psychological change. Accordin g to Fox (2000a), however, this link is inconsistent and it is process factors to do with regular exercise participation that are likely to be a more important determinant of psychological change.

Thermogenesis and increased core body temperature	Increased core body temperature has been found to be associated with reductions in state anxiety (Raglin & Morgan, 1985) and reduced muscle tension (deVries, Beckman, Huber, & Dieckmeir, 1968). In a review, Koltyn (1997) concludes that existing research is conflicting in terms of the link between thermogenesis and anxiety reduction through participation in physical activity and that there is minimal evidence for a causal relationship.
Psychological	
Improved social interaction and support	Social interaction and support is generally considered to be a primary human need (Baumeister & Leary, 1995). It is evident that physical activity offers a diverse range of social interaction and support possibilities. Further, the opportunity for positive social interaction and support is often missing for those with mental disorders (Repper & Perkins, 2003). Exercise conducted in a supportive group environment may therefore be particularly important for mental health improvements in these individuals.
Sense of autonomy and personal control	Psychologists generally recognise the importance of autonomy and self-determination to psychological health (Ryan & Deci, 2000). Physical activity offers a potential area where meaningful personal control can be taken over health behaviours. It may be that the autonomy gained through exercise generalises to other areas of life through feelings of empowerment (Fox, 1997).
Improved perceptions of competence	Specific physical self-perceptions have been shown to be related to physical self-worth in general (Fox, 1990). In turn, physical self-worth has direct mental health links (Sonstroem & Potts, 1996) and is related to global self-esteem (Fox, 1990). Existing research suggests that competence and self-perceptions can be improved through physical activity and that this can have a positive mental health effect (Fox, 1997).
Enhanced body image and self-acceptance	Body image has been found to be strongly related to self-esteem, particularly in women (Davis, 1997). Additionally, body image concerns may be relevant to individuals receiving medication. The improvement in body composition possible through physical activity, coupled with improved self-acceptance may be an effective route to improving psychological well-being.
Distraction or "time-out"	Bahrke and Morgan's (1978) distraction hypothesis suggests that exercise works as a distraction from the worries and stresses of daily life, inducing positive emotions and reducing anxiety. For example, when comparing running therapy with verbal therapy for the relief of depression, Greist and colleagues (1979) suggested that "depressive cognitions and affect seldom emerge during running, and when they do, they are virtually impossible to maintain" (p. 45).

A major reason for the lack of precise understanding of the effects of any intervention must lie in the complexity of mental health and illness. According to the Surgeon General's Report (US DHHS, 1999):

> Mental health and mental illness are dynamic, ever-changing phenomena. At any given moment, a person's mental status reflects the sum total of that individual's genetic inheritance and life experiences (p. 16).

Because a diverse range of factors influence a person's mental health at any point in time it is likely that a combination of triggers interact to result in a mental health problem. It appears that "the causes of most mental disorders lie in some combination of genetic and environmental factors, which may be biological or psychosocial" (US DHHS, 1999; p.16-17). Although all psychological processes are, at the most fundamental level, carried out by chemical or biological processes this does not imply that chemical or biological factors actually *caused* the disorder (Bedi, 1999). Because psychosocial factors also directly impact mental health, a sole focus on biochemical change is therefore insufficient to adequately explain changes in mental functioning. This argument is particularly pertinent when we consider that psychological benefits through exercise have often been found independent of any change in physical fitness (Martinsen, 1993). Psychosocial factors related to exercise participation, in contrast to changes in physiological factors, appear to be critical in many mental health settings (Fox, 1999).

In accepting that both biological and psychosocial factors *interact* to cause mental disorders it is necessary to acknowledge that changes in these factors may lead to the remittance of a disorder. For example, if a person's depression is caused by a combination of social, environmental, and biochemical factors then improvements in some combination of these factors could explain remission. Part of the current difficulty in finding a single mechanism to explain improvements in mental health is therefore due to the varied, complex, and individual causes of mental illness. It seems that an alternative approach is needed in order to better explain and understand the mechanisms of psychological change through physical activity.

1.4 THEORETICAL PERSPECTIVES: A PROCESS APPROACH

An alternative method of understanding the causes or mechanisms of psychological change through physical activity is to take a *process* approach. A process-oriented approach is more likely to include the broad range of biological and psychosocial factors that impact mental health and therefore provide a more complete explanation of the causes of psychological change. Two recent theories may be useful in developing an improved understanding of psychological function and mental health through physical activity by taking a process-oriented approach, which includes some of the factors that have been suggested to influence mental health. It may be that the diverse range of possible biological and psychosocial benefits that can be experienced through physical activity make these broader process-oriented explanations particularly relevant to exercise contexts.

Psychobiological theory of personality

Cloninger, Przybeck, Svrakic, and Wetzel's (1994) psychobiological theory of personality integrates the psychosocial and biological aspects of mental health identified in the Surgeon General's Report (US DHHS, 1999) and offers an explanation for changes in mental health. In this theory mental health is conceptualised as being dependent on the interaction of two developmentally separate components of personality: *temperament* and *character* (Cloninger et al., 1994). Temperament "refers to biases in automatic responses to emotional stimuli and is moderately heritable and stable throughout life regardless of culture or social learning" (Cloninger, Svrakic, Bayon, & Przybeck, 1999, p.34). Temperament is conceived as being largely genetically determined and therefore more related to traditional personality theories where personality is viewed as being relatively unchangeable. The second component, character, "refers to individual differences in our voluntary goals and values, which are based on insight learning of intuitions and concepts about ourselves, other people, and other objects" (Cloninger & Svrakic, 1997; p.121). Character is developmentally changeable, that is, it is determined by psychosocial factors such as experiential learning and environmental influences. It is therefore of more direct interest in the physical activity context.

Recent research has investigated temperament and character in mental health contexts such as depression, alcohol dependence, and psychoses. Temperament type has been found to predict response to treatments such as antidepressants (Joyce, Mulder, & Cloninger, 1994; Joyce, Mulder, & Cloninger, 1999; Nelson & Cloninger, 1995), differentiate psychotic subtypes (Cloninger, 1999), and specific personality disorders (Cloninger, Bayon, & Svrakic, 1998). Character profile has been found to predict the presence and risk of certain mental disorders (Cloninger, 1998), and be closely linked to depression (Cloninger et al., 1999; Hansenner, Reggers, Pinto, Kjiri, Ajamier, & Ansseau, 1999; Peirson & Heuchert, 2001; Richter, Eisemann, & Richter, 2000). Two specific aspects of character have been found to be particularly important: self-directedness (autonomy and perceptions of control) and co-operativeness (perceived inter-personal relations). Individuals reporting low levels of self-directedness and co-operativeness have been found to be more likely to experience a mental disorder (Cloninger et al., 1999).

Because character profile is responsive to experiential learning and social or environmental factors, improvements in self-directedness and co-operativeness represent a potential mechanism to explain mental health improvements through any behavioural or psychological intervention. The broad range of psychosocial phenomena included in psychobiological theory (such as individual predisposition, influence of environmental factors, learning experiences, and life events) suggest that this theory might offer a more comprehensive account of the psychological benefits experienced through participation in physical activity.

Self-determination theory

Recent theoretical advances suggest that in addition to improved self-esteem being a potential outcome of physical activity, self-esteem may act as a psychosocial mechanism that explains the effects of physical activity on mental health. Self-determination theory offers a potentially enlightening perspective on explaining the psychological benefits of exercise (see Ryan & Deci, 2000). Deci and Ryan (1995) identify two alternative forms of self-esteem that have differing effects on mental health. *True* self-esteem is most closely related to positive mental health and well-being and is dependent on meeting and balancing three fundamental needs: autonomy, relatedness, and competence. The authors propose that failure to meet and balance these

needs will result in either low self-esteem or *contingent* self-esteem resulting in a fragile, insecure sense of self (Deci & Ryan, 1995).

Of particular interest in Deci and Ryan's theory is that all three of the basic needs are commonly reported outcomes of physical activity interventions (Fox, 1997) and are often unmet among individuals with mental disorders. Autonomy, or perceptions of personal control, is reported to be frequently lacking particularly among people with depression where feelings of powerlessness and helplessness are common (Seligman, 1975). Physical activity offers a potential avenue where meaningful control can be gradually taken as the individual assumes responsibility for the organisation of his or her exercise schedule. Relatedness to other people is often missing for individuals with mental disorders who might report feelings of isolation or difficulty in maintaining close or social contact with friends and family (US DHHS, 1999). The provision of physical activity in a supportive group environment represents one approach to providing opportunity for positive social interaction that may be valuable. Finally, perceptions of competence may be low among people with mental illness and physical activity has well documented positive effects on perceived competence, particularly in areas related to physical abilities (Fox, 1997). Although no research has as yet applied this theory to physical activity and mental health settings, it has broad similarities to Cloninger's psychobiological theory in that both acknowledge the central importance of autonomy and inter-relations with others in achieving mental health.

Individual specificity

The diversity of explanations for the mental health benefits of physical activity parallels the broad range of factors that influence mental health and disorder. It is possible that psychological, biochemical, and physiological factors are responsible for mental health change in different contexts or that an interaction of psychosocial and genetic factors results in change. The diverse genetic and psychosocial determinants of mental health, and the broad range of psychological stimuli that can be experienced through physical activity, imply that any explanation must be capable of covering many possible scenarios. In reality, it currently appears that Salmon (2001) is correct in his view that no single theory is likely to adequately explain the mental health benefits of physical activity.

To date, the most satisfying conclusion in the mechanisms debate has been offered by Fox (1999). In acknowledging the huge variety of potential triggers (such as

exercise type, environment, social context) and individual circumstances (such as state of mental health, needs, preferences, and personal background), Fox suggests that several mechanisms most likely operate in concert with the precise combination being highly individual-specific. That is, different processes operate for different people at different times. It is from this perspective that future research should be conducted in order to *include* as many aspects of 'the physical activity experience' as possible. Rather than focussing on one specific mechanism for mental health change, it is more important to allow for *individual variation* through the adoption of an appropriately broad theoretical stance and suitably inclusive research methods.

CHAPTER TWO

MENTAL HEALTH AND PERSONALITY IN CARDIAC REHABILITATION

This chapter reports, in the form of a traditional scientific tale, the first study which was carried out to explore Cloninger and colleagues (1994) psychobiological theory of personality in the context of people who had suffered a cardiac event. Physical activity was relevant to these people as it represented an important component of the rehabilitation programme in which some were engaged and others were recommended.

2.1 INTRODUCTION

Personality and health

For many years psychologists have been interested in the potential influence of personality factors on the development and course of a diverse range of health problems. Over forty years ago research began to investigate the effects of the type-A personality profile (characterised by hostility, competitiveness, and excessive commitment to work) on the development of coronary heart disease (CHD). Although some early studies reported links between type-A personality and CHD risk, it now appears that the relationship is not consistent in clinical settings (Rozanski, Blumenthal, & Kaplan, 1999, 1999). Similarly, inconsistent results have been noted across a range of health settings and with a variety of conceptions of personality (Sanderman & Ranchor, 1997; Wiebe & Christensen, 1996). These inconsistencies have been variously attributed to inadequate conceptions of personality, a focus on inappropriate aspects of personality, attending to the development rather than the course of disease, and the exclusion of health behaviours and important contextual or situational factors (Boothkewley & Vickers, 1994; Sanderman & Ranchor, 1997; Wiebe & Christensen, 1996). Recent research has taken two parallel approaches to the investigation of the effects of personality on health. First, personality is seen to have a potential influence

on health and well-being in general. Second, the influence of personality on the development and course of specific health problems (such as CHD) has been studied.

Some researchers (e.g. Sanderman & Ranchor, 1997) have suggested that personality may have a general influence on health and well-being through health behaviours, coping, and the experience of stress. From this perspective, neuroticism and extraversion, two factors from Eysenck's personality model (Eysenck & Eysenck, 1985), have been found to predict stress and coping. Conscientiousness, from the Five-Factor Model of personality (FFM; Costa & McCrae, 1992), has also been reported to relate to coping (Vollrath & Torgersen, 2000). Boothkewley and Vickers (1994) provide further support for the importance of neuroticism, extraversion, and conscientiousness by demonstrating important links between these aspects of personality and a variety of health behaviours. In addition, these authors found links between agreeableness and health behaviours. When contextual factors are included along with the newer conceptions of personality (such as the FFM), preliminary evidence suggests that personality may also predict patient adherence to treatment for chronic illness (Wiebe & Christensen, 1996). The suggestion of Sanderman and Ranchor (1997) that personality might have a broad and generic effect on health and well-being seems justified on the basis of existing research.

Personality and coronary heart disease

Coronary heart disease and associated cardiac events, such as myocardial infarction (MI) and cardiac surgery, represent a large-scale public health problem. Recent figures show CHD to be the leading cause of death in England, resulting in 110,000 deaths in 1998 (Department of Health, 2001). In the United Kingdom approximately 1.4 million people suffer from angina, while 300,000 people experience a MI each year (Department of Health, 2001).

Although research is equivocal about the influence of personality on the initial development of CHD, evidence clearly suggests that personality affects the course of disease in terms of both event recurrence and successful recovery (Rozanski et al., 1999; Sanderman & Ranchor, 1997). Of particular note is the work of Denollet and colleagues who have investigated the influence of the Type-D personality profile. This profile combines negative affectivity with inhibited self-expression (Denollet, 1998). In one study of CHD patients it was found that "the risk of death was nearly four times higher in type-D than non-type-D patients" (Denollet, Sys, Stroobant, Rombouts,

Gillebert, & Brutsaert, 1996, p.419). Neuroticism has also been found to be a predictor of mortality among patients with congestive heart failure (Murberg, Bru, & Aarsland, 2001), although this relationship was weaker than the type-D associations reported by Denollet and colleagues. Additionally, the personality traits of agency (a focus on the self) and unmitigated communion (a focus on others to the exclusion of the self) have been found to influence recovery from a cardiac event. Fritz (2000) found agency to predict improved mental health and well-being during recovery, while unmitigated communion had a negative relationship with these variables.

Other studies have taken the perspective of investigating the potential effects of personality factors on the process of cardiac rehabilitation. For example, dispositional optimism has been found to relate to health changes (such as reducing body fat and increasing aerobic capacity through exercise and diet) in cardiac patients (Shepperd, Maroto, & Pbert, 1996). In addition, specific aspects of personality have been reported to be related to appointment-keeping adherence in cardiac rehabilitation (Hershberger, Robertson, & Markert, 1999).

These diverse approaches to the investigation of the effects of personality on recovery from cardiac illness are all likely to be important given the broad array of problems experienced by many cardiac patients and the recognised importance of cardiac rehabilitation in the recovery process (Department of Health, 2001). The possibility of personality influencing both occurrence of cardiac events and psychological recovery in general fit closely with the broad goals of cardiac rehabilitation identified by the World Health Organisation (1993). Cardiac rehabilitation programmes are generally effective in meeting the primary rehabilitation goal of reduced event recurrence, typically resulting in a 30-60% reduction in subsequent cardiac events (Sullivan & Sullivan, 1997).

The second goal of rehabilitation is the broad improvement of quality of life and the remediation of distress. Psychological problems commonly occur following MI or cardiac surgery (Lane, Carroll, & Lip, 1999) and moderate to severe levels of depression are typically found in 13-19% of MI patients with many more experiencing non-clinical levels of depression which do not always decline in the months following MI (McGee et al., 1999). High levels of anxiety have also been reported in 40-50% of patients following MI, with 20% reporting anxiety at 12-month follow-up (Bennett & Carroll, 1994). These psychological problems are not trivial and directly threaten the second goal of rehabilitation set out by the World Health Organisation. Recent evidence

also indicates that psychological problems represent a further independent risk factor for event recurrence (Lane et al., 1999; McGee et al., 1999; Rozanski et al., 1999). Depression, for example, has been associated with a fivefold increase in mortality among cardiac patients in the six months following MI (Fraser-Smith, Lesperance, & Talajic, 1995). Similarly, those patients reporting psychological distress during rehabilitation are 12 times more likely to suffer a further cardiac event (McGee et al., 1999).

In the cardiac setting it therefore appears that aspects of personality potentially influence rehabilitation in three ways. First, particular personality profiles (such as the type-D profile) increase the risk of mortality and event recurrence (Denollet et al., 1996; Rozanski et al., 1999). Second, individual personality factors may affect psychological response to cardiac events in terms of psychological problems such as depression and anxiety thereby reducing patient quality of life and inhibiting full recovery (Fritz, 2000). Third, preliminary evidence suggests that certain aspects of personality may affect compliance with the rehabilitation programme (Hershberger et al., 1999).

Temperament and character

Psychobiological theory of personality (Cloninger, Svrakic, & Przybeck, 1993; Cloninger et al., 1994) integrates the psychological and biological aspects of mental function in order to explain mental health on the basis of personality. Two anatomically and developmentally separate components of personality have been identified: *temperament* and *character*. Four independent dimensions of temperament have been identified: harm avoidance, novelty seeking, reward dependence, and persistence. Three dimensions of character have been established: self-directedness, co-operativeness, and self-transcendence.

As discussed in chapter one (section 1.4), research has generally supported the importance of temperament and character in a wide range of health settings. Although these findings are compelling, studies have yet to be conducted in cardiac settings, despite the importance of psychological factors for these patients and the potential relevance of personality to disease course and recovery. On the basis of existing research, temperament and character may be useful in the prediction, detection, and treatment of psychological health problems in cardiac settings, in addition to predicting compliance and outcomes of rehabilitation (Cloninger, Bayon, & Svrakic, 1998, Svrakic, Whitehead, Przybeck, & Cloninger, 1993). Further, psychobiological theory of

personality offers unique opportunities for improving understanding of the psychological health and function of individuals recovering from a cardiac event.

Aims and hypotheses

The present study had three aims: (i) To examine the relationships between psychological well-being and temperament and character profile in cardiac patients recently admitted to hospital following MI (phase one rehabilitation) and those in an extended long-term maintenance exercise programme (phase four rehabilitation). (ii) To explore possible temperament and character differences between phase one patients, phase four patients, and existing population norms. (iii) To investigate the influence of baseline temperament, character, and psychological well-being on subsequent cardiac rehabilitation attendance and exercise participation.

Because this is the first time temperament and character have been investigated in a cardiac setting, the study was exploratory and utilised a smaller sample than is typical in personality research. Hypotheses were loosely framed as they were based on generalisations from other health contexts and alternative measures of personality. First, it was hypothesised that temperament and character would be related to measures of psychological well-being in line with previous research using other populations. In particular, it was expected that the character dimensions of self-directedness and co-operativeness would be inversely related to depression and anxiety and positively related to satisfaction with life. Second, it was expected that cardiac patients might have differences in temperament, character, and psychological well-being through the experience of a major life event. In addition, differences in temperament, character, and psychological well-being were anticipated between phase one and phase four participants on the basis that phase four patients had several months to adjust and adapt to the cardiac event and had selected themselves into continued rehabilitative treatment. Third, it was expected that different personality profiles (namely the interactions between dimensions of temperament and character) would relate to psychological well-being, rehabilitation attendance, and exercise participation.

2.2 METHOD

Participants

Participants were 40 phase one and 41 phase four cardiac rehabilitation patients. Phase one patients were hospitalised following MI and phase four patients were attending a long-term out-patient cardiac rehabilitation exercise programme based on a university site. Complete responses were received from 80% of both phase one participants and phase four participants. Thirty-one percent of phase one participants (n=10) and 15% of phase four participants (n=5) were female.

Measures

The Temperament and Character Inventory (TCI; Cloninger et al., 1994). The TCI is a 240-item forced choice instrument designed to measure dimensions of temperament and character. According to Cloninger (1999, p.177), "temperament involves automatic impulses in response to basic associative stimuli (i.e., novelty, reward, punishment), which give rise to basic emotions such as fear, anger, disgust, and determination" and is conceptualised as being relatively stable. Temperament comprises four dimensions: novelty seeking (impulsiveness vs. rigidity), harm avoidance (anxiety-proneness vs. risk taking), reward dependence (approval-seeking vs. aloofness), and persistence (determination vs. fickleness). Character, conceptualised as developing in a stepwise fashion in response to experiential and social learning, comprises three dimensions. Self-directedness is "the self acting on other objects to accomplish its own goals, giving rise to resourcefulness and hope in the face of challenges"; co-operativeness "is the self identifying with other selves empathically, giving rise to compassion and love for others as oneself"; and self-transcendence "is the self-forgetful awareness that all objects are integral participants in the evolution of all that is as a whole, giving coherence and joy to all things" (Cloninger, 1999, p.177).

Cloninger and colleagues (1994) report satisfactory internal consistency coefficients between 0.70 and 0.89 in different groups of college students and six-month test-retest correlations between 0.51 and 0.84. The factor validity of the TCI has been supported in several subsequent studies (e.g. Brandstrom, Schlette, Przybeck, Lundberg, Forsgren, & Sigvardsson et al., 1998; Carmona, Paez, Lopez, & Nicolini, 1996; Sato, Narita, Hirano, Kusunoki, Goto, Sakado, & Uehara, 2001). Cloninger and colleagues

(1994) provide population norms for each of the TCI subscales based on a mixed community sample (n=300) grouped according to age range. These subscale norms have been extensively investigated in subsequent studies and have generally been found to be consistent across a variety of cultures in several different countries (Brandstrom et al., 1998; Carmona et al., 1996; Duijsens, Spinhoven, Goekoop, Spermon, EurelingsBontekoe, 2000; Richter, Brandstrom, & Przybeck, 1999) although some cross-cultural differences have been reported (Pelissolo & Lepine, 2000). On the basis of this subsequent research it appears that the population norms of Cloninger and colleagues (1994) are potentially useful for comparison purposes when examining TCI scores in other populations. For the purposes of this exploratory study it was deemed helpful to compare data from both phase one and phase four patients with these community sample norms (Cloninger et al., 1994).

The Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983). The HADS is a 14-item scale which contains seven items to measure anxiety and seven items to measure depression. Participants are asked to reply to a series of statements by circling the appropriate response scored on a scale of 0-3. Subscale scores >8 are generally taken to indicate the likelihood that the respondent is anxious or depressed (Duits, Duivenvoorden, Boeke, Taams, Mochtar, Krauss, Passchier, & Erdman, 1999; Zigmond & Snaith, 1983). The HADS has been widely used as an anxiety and depression screening measure in hospital settings and has previously been used in cardiac research (Duits et al., 1999). Zigmond and Snaith (1983) report internal consistencies for each item ranging from .76 to .41 for the anxiety (p<.01) and .60 to .30 for depression items (p<.02).

Commitment to Physical Activity Scale (CPAS; Corbin, Nielsen, Borsdorf, & Laurie, 1987). The Commitment to Physical Activity Scale is a 12-item scale designed to assess an individual's general attitude towards physical activity participation and its potential benefits. Respondents indicate on a 5-point Likert scale (*strongly disagree* to *strongly agree*) the extent to which they agree or disagree with a series of statements regarding physical activity. A score of one indicates minimum commitment to physical activity and a score of five indicates maximum commitment. Corbin and colleagues (1987) report a test-retest reliability coefficient of .80 and a Cronbach's alpha value of .88.

Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985). The SWLS is a 5-item scale designed to measure a person's global judgement of

satisfaction with their life. Statements do not refer to specific aspects of life leaving the respondent to reference their answers to their own experiences and values. Respondents are asked to rate on a 7-point Likert scale (1=*strongly disagree* to 7=*strongly agree*) the extent to which they agree with each statement. Diener and colleagues (1985) report that the SWLS is a valid and reliable measure of satisfaction with life (alpha=.87) and has two-month test-retest stability (alpha=.82).

Additional measures. In addition to the self-report measures above, participants were given examples of types of leisure time physical activity and asked to respond to the question "*In general, how many times a week do you take part in these types of physical activity?*" by circling the appropriate response. Possible responses were zero, one, two, three, and four or more. Finally, 12-week follow-up data were obtained from the cardiac rehabilitation organisers for phase one patient's attendance at the initial cardiac rehabilitation programme. All measures are shown in appendix 2 and 3.

Procedures

Phase one. Participants in phase one had a confirmed diagnosis of MI and were visited while in hospital within seven days of the MI. In conjunction with the rehabilitation physiotherapist it was decided that potential participants should be visited in person while hospitalised to maximise response rate. This process depended on the physiotherapist putting the researcher (DC) in contact with patients who she judged to be well enough to participate. For confidentiality, a telephone call was made to the university as soon as a possible participant was available. The name and location of the patient was then collected from the cardiac care unit to allow a meeting between patient and researcher in the ward. At this time the participants were provided with an information sheet about the study before completing informed consent (examples provided in appendix 1). Those participants who provided informed consent were given a questionnaire pack containing a stamped addressed envelope and asked to return the completed questionnaire within one week. Additionally, a follow-up questionnaire was sent out to phase one participants 12-weeks following MI. The follow-up pack included the HADS, SWLS, CPAS, and the weekly participation in physical activity question detailed above.

Phase four. Because personal contact was also thought likely to improve response rate for this group, the researcher (DC) regularly attended a weekly *Healthy Hearts* exercise group for phase four rehabilitation patients. Following a brief

discussion of the purposes of the research, potential participants were provided with an information sheet about the study and an informed consent form (see example in appendix 1). Consenting participants were given the questionnaire pack with a stamped addressed envelope and asked to return the completed questionnaires within one week.

All participation in the study was voluntary and ethical clearance was received from the Research Ethics Committee, Royal United Hospital, Bath NHS Trust, Combe Park, Bath.

Design and data analysis

Baseline data from the present study was collected in order to establish the strength of relationships between temperament, character (as measured by the TCI), and psychological health in cardiac rehabilitation patients. A between-subjects cross-sectional design was employed to compare the baseline data from phase one with data from phase four patients and population norms. Pearson *r* correlation analyses were used to examine relationships between variables in both phase one and phase four participants. Independent single sample *t*-tests were used to investigate differences between phase one and phase four participants while single sample *t*-tests were used to independently compare both phase one and phase four data with population norms. One-way analyses of variance were used to investigate self-reported psychological health according to personality profile. For the follow-up data a within-subjects design was used in order to examine changes experienced over time by the participants. Pearson *r* correlation analyses were used to examine relationships between baseline and follow-up variables.

2.3 RESULTS

Descriptive statistics

Descriptive statistics for phase one and phase four participants are provided in Table 2.1. Also shown in Table 2.1 are TCI subscale norms for an age matched population which was drawn from a larger sample of 150 women and 150 men (Cloninger et al., 1994, p.89). Coefficients of reliability were calculated for satisfaction with life (alpha=.86), anxiety (alpha=.88), depression (alpha=.80), and commitment to physical activity (alpha=.91). Consistent with other research which has utilised the TCI (see Cloninger et al., 1994), coefficients of reliability are not reported for the

temperament and character subscales as the mean scores were calculated by the TCI software.

Between group differences

In order to investigate differences between phase one and phase four participants, a series of independent samples t-tests were conducted. Significant differences at the $p<.05$ level are shown in Table 2.1. Both commitment to physical activity (t=-3.586, p=.001) and the number of physical activity sessions per week (t=-3.032, p=.005) differed between the groups. No other significant differences were found.

TCI subscales compared to population norms

A series of single sample t-tests were carried out to investigate differences between both phase one and phase four groups in comparison to similarly aged population norms. Significant differences are summarised in Table 2.1. In terms of temperament sub-scales, phase one participants scored significantly higher than population norms in novelty seeking (t=2.498, p=.018) and lower in reward dependence (t=-3.786, p=.001) and persistence (t=-2.557, p=.016). Phase four participants were significantly higher than population norms in harm avoidance (t=3.737, p=.001) and lower in reward dependence (t=-2.444, p=.02) and persistence (t=-2.084, p=.045). In terms of character sub-scales, phase one participants scored significantly lower than population norms in self-directedness (t=-2.063, p=.048), cooperativeness (t=-2.368, p=.025), and self-transcendence (t=-4.549, p=.000). Similarly, phase four participants were significantly lower than population norms in self-directedness (t=-2.545, p=.016), cooperativeness (t=-3.079, p=.004), and self-transcendence (t=-6.048, p=.000).

Table 2.1: Descriptive statistics

	Phase one (*n*=32) *M (SD)*	Phase four (*n*=33) *M (SD)*	Population norm (*n*=33) *M (SD)*
Age (years)	62.1 (10.3)	62.7 (9.2)	61.1 (9.5)
Commitment to physical activity	3.11 (.82)*	3.78 (.64)*	
Physical activity / week	1.05 (1.43)*	2.50 (.71)*	
Female percentage	31%	15%	
Psychological measures			
Satisfaction with life	4.91 (1.52)	4.80 (1.23)	
Anxiety	7.28 (4.23)	7.27 (3.92)	
Depression	4.68 (3.10)	3.65 (3.19)	
TCI Temperament			
Novelty seeking	17.26 (6.59)§	16.0 (6.92)	14.3 (5.9)§
Harm avoidance	13.42 (7.30)	16.36 (6.71)§	12.0 (6.1)§
Reward dependence	14.77 (3.27)§	15.3 (3.99)§	17.0 (4.1)§
Persistence	4.52 (2.14)§	4.76 (2.05)§	5.5 (2.0)§
TCI Character			
Self-directedness	31.55 (7.15)§	30.73 (7.84)§	34.2 (5.4)§
Co-operativeness	34.23 (4.88)§	32.76 (6.61)§	36.3 (4.8)§
Self-transcendence	14.55 (6.92)§	14.03 (5.86)§	20.2 (6.9)§

Notes:
* Significant between groups difference ($p<.01$)
§ Significant difference in comparison to TCI population norm ($p<.05$)

Table 2.2: Pearson *r* correlations among psychological variables

	a	b	c	d	e	f	g	h	i	j	k
a. Age		-.22	-.29	.17	-.46**	.07	.08	.25	.17	.06	-.14
b. Satisfaction with life	.27		-.12	-.29	.33	-.33	.21	.18	-.01	.00	-.18
c. Anxiety	-.35*	-.35		.54**	-.24	.50**	-.16	-.40*	-.25	-.03	-.01
d. Depression	-.14	-.42*	.36*		-.25	.42*	-.17	-.32	-.15	.24	-.01
e. Novelty seeking	-.49**	-.06	.14	-2.2		-.53**	.02	-.05	-.08	.24	.30
f. Harm avoidance	.08	-.29	.24	.37*	-.54**		-.27	-.58**	-.16	-.04	-.06
g. Reward dependence	.07	-.05	-.18	-.24	.16	-.02		.50**	.59**	.26	-.18
h. Self-directedness	.35*	.68**	-.30	-.30	-.28	-.18	.07		.60**	.09	-.15
i. Co-operativeness	.10	.21	-.25	-.22	.12	-.28	.57**	.44*		.50**	-.08
j. Self-transcendence	.15	.12	-.17	-.31	-.07	-.08	.14	.12	.11		.09
k. Commitment to P.A.	.08	.42*	-.09	-.16	.26	-.10	.04	.30	.08	.20	

Notes:

Figures above the diagonal are for phase one (n=32); figures below the diagonal are for phase four (n=33).

** Pearson r correlation significant at $p<.01$

* Pearson r correlation significant at $p<.05$

Relationships among psychological variables

Pearson *r* correlation analyses were conducted to investigate relationships between the psychological variables in both phase one and phase four participants. Results are presented in Table 2.2.

Personality profiles

A primary use of TCI the temperament and character subscales scores is the formation of personality profiles based on whether the participant scores high or low on specific subscales. This procedure has been used extensively in research employing the TCI (see Cloninger et al., 1994 on the basis that an interaction between TCI subscales might better explain differences in mental health and well-being than score on a single subscale. In order to investigate this possibility, four personality profiles were created on the basis of the TCI subscales of harm avoidance and self-directedness. These subscales were selected as the basis of the profiles because they were both found to correlate with other psychological variables (see Table 2.2) and because they have been found to be two of the more predictive TCI subscales in previous research (Cloninger et al., 1994).

Because of the small participant numbers in this study, the phase one and phase four participants were collapsed into one group (n=64) to provide sufficient numbers within each of the four personality profiles. This is a similar procedure to that used in other research (e.g. Treasure & Newbery, 1998) when no significant differences exist between the two groups in any of the variables included in the analysis (satisfaction with life, anxiety, depression, harm avoidance, or self-directedness scores).

The high/low scoring groups were created on the basis of median splits for the self-directedness and harm avoidance subscales to create groups containing similar numbers of participants. The median score for harm avoidance was 14; those scoring less than 14 (n=29) were classified as low harm avoidance while those scoring greater than or equal to 14 (n=35) were classified as high harm avoidance. The median score for self-directedness was 31; those scoring greater than 31 (n=30) were classified as high self-directedness while those scoring less than or equal to 31 (n=34) were classified as low self-directedness. Four distinct personality profiles could then be created on the basis of high or low harm avoidance and self-directedness scores (Profile 1: High SD, Low HA; Profile 2: High SD, High HA; Profile 3: Low SD, Low HA;

Profile 4: Low SD, High HA). The composition of these four groups is shown in Table 2.3.

A series of three oneway analysis of variances (ANOVA) were conducted using personality profile as the independent variable and each of the three psychological variables in turn as the dependent variable. A significant between groups difference was found for satisfaction with life (F [3,60] = 4.903; p=.004). Significant between groups differences were also found for anxiety (F [3,59] = 6.572; p=.001) and depression (F [3,59] = 3.975; p=.012). The relationships between personality profile and satisfaction with life, anxiety, and depression are presented graphically in Figure 2.1.

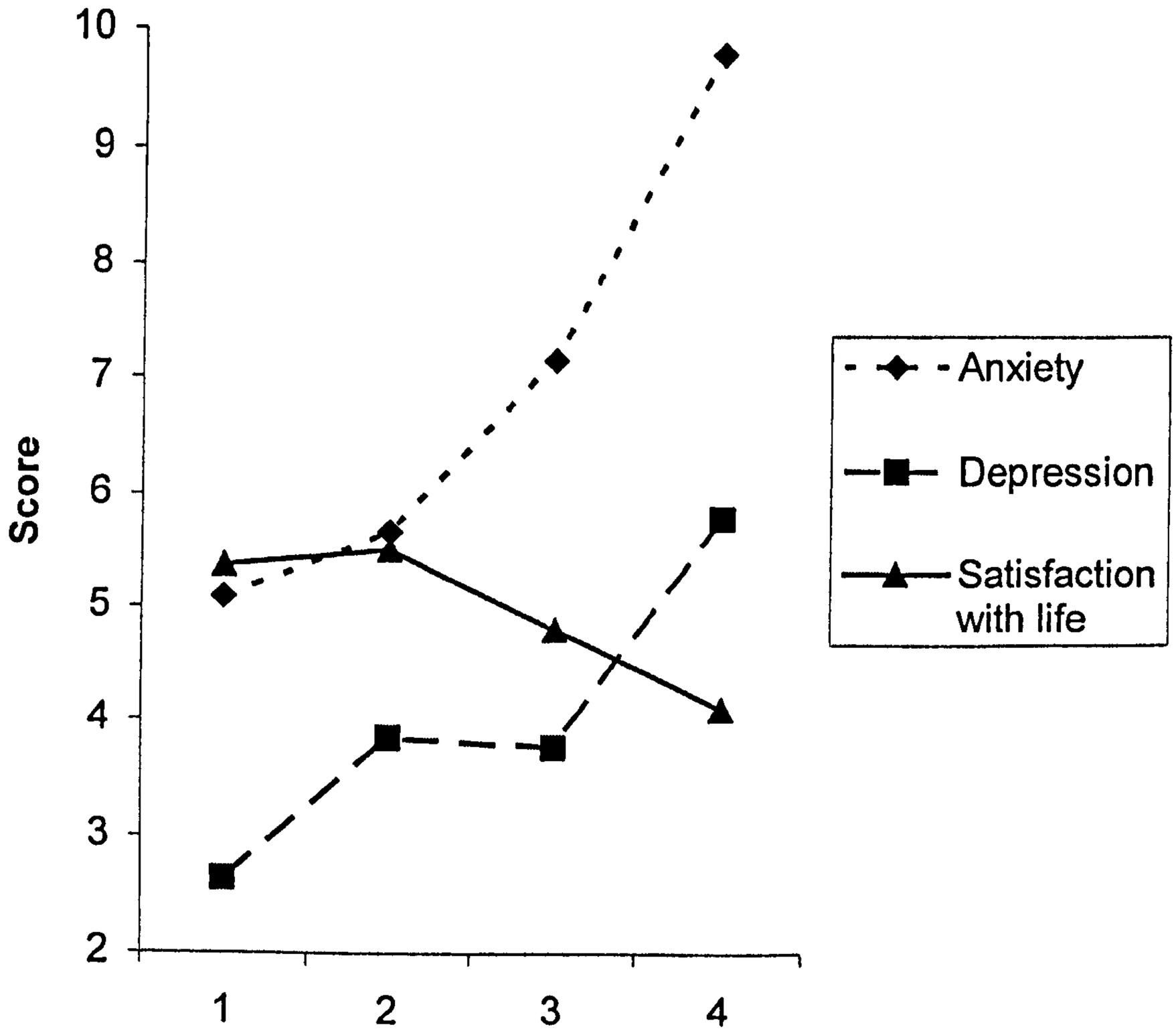
In order to further examine these differences, Tukey's Honestly Significant Difference follow-up analyses were conducted. Profile 1 (high self-directedness, low harm avoidance) (p=.011) and Profile 2 (high self-directedness, high harm avoidance) (p=.013) had significantly higher satisfaction with life scores than Profile 4 (low self-directedness, high harm avoidance). In terms of anxiety, Profile 4 had significantly higher scores than both Profile 1 (p=.001) and Profile 2 (p=.015). For depression, significantly higher scores were reported by participants in Profile 4 than participants in Profile 1 (p=.007).

Table 2.3: Personality profiles (n=64)

	Personality profile			
	1	2	3	4
N	18	12	11	23
Harm avoidance	Low (<14)	High (>=14)	Low (<14)	High (>=14)
Self-directedness	High (>31)	High (>31)	Low (<=31)	Low (<=31)
		M (SD)		
Satisfaction with life**	5.38[a] (1.70)	5.52[a] (.52)	4.80 (.82)	4.10[b] (1.29)
Anxiety**	5.09[a] (3.13)	5.67[a] (1.62)	7.15 (4.03)	9.78[b] (4.35)
Depression*	2.64[a] (2.17)	3.84 (3.60)	3.76 (2.38)	5.79[b] (3.40)

Note:
** ANOVA significant at p<.005
* ANOVA significant at p<.05
Different superscripts ([a] or [b]) indicate a significant between group difference (p<.05) identified through Tukey's HSD follow-up analyses.

Figure 2.1: Psychological variables according to personality profile



Follow-up results

Twelve-week follow-up results were received from 23 phase one patients (72% of baseline respondents, 58% of initial recruitment sample). A series of Pearson *r* correlation analyses were conducted to explore relationships between rehabilitation attendance, number of physical activity sessions per week at follow up and psychological well-being and TCI subscales at a) baseline, and b) follow up. All significant relationships are shown in Table 2.4. No further significant correlations were found.

Table 2.4: Correlations in the follow-up sample (*n*=23).

	a	b	c	d	e	f	g	h	i	j
Baseline variables:										
a. Activity per week										
b. Anxiety	-.49									
c. Depression	-.66**	.29								
d. Harm avoidance	-.51	.47*	.26							
e. Self-directedness	.34	-.20	-.17	-.55**						
f. Commitment to PA	.61*	-.10	-.10	-.13	-.08					
Follow-up variables:										
g. Attendance	.61*	.18	-.30	-.07	-.10	.19				
h. Activity per week	.62*	-.13	-.68**	.15	-.02	.14	.66**			
i. Anxiety	-.53	.76**	.52*	.60**	-.49*	-.19	.00	-.09		
j. Depression	-.67**	.50*	.69**	.41	-.28	-.25	-.51*	-.63**	.81**	
k. Commitment to PA	.64*	-.37	-.56**	-.15	.23	.66**	.44*	.57*	-.36	-.47*

Notes:
** Pearson *r* correlation significant at $p<.01$
* Pearson *r* correlation significant at $p<.05$

2.4 DISCUSSION

This study comprised a preliminary investigation of links between temperament, character, psychological well-being, physical activity participation, and attendance at cardiac rehabilitation in phase one and phase four cardiac patients. Because this is the first time Cloninger's psychobiological theory of personality has been investigated in a cardiac setting the study was exploratory in nature and designed to investigate potential for further hypothesis generation.

Reflections on a cardiac population and mental health

Prior to this study, my intention had been to conduct study a mental health population. However, as Stake (1995) suggests, gaining access to any population for social science research is widely acknowledged as problematic. When the population is defined as a vulnerable group, such as mental health service users, the difficulties intensify. In order to facilitate gaining access to participants it would be necessary to make a contact – a mental health professional sympathetic to the aims of my research.

This kind of individual, a 'gatekeeper' (Stake, 1995), would have the power to facilitate (or prevent) my access to individuals or populations by helping address the important practical issues of who, where, when, and how.

During the first year of study, although I met several times with the co-ordinator of a local mental health promotion unit and a clinical psychologist interested in physical activity, I was unable to negotiate access to a mental health population. Towards the end of this year, it was suggested that a cardiac population might be appropriate for my research. Although this represented a shift from my original focus, for several reasons a cardiac population was relevant and offered a potential tie in that might serve to inform future study.

First, it is intuitive that a cardiac event is a traumatic life experience which is likely to have some kind of psychological consequences. Thus, cardiac patients are likely to be in the process of psychological change. This link was supported by the existing research. Second, in cardiac populations, mental health has clear links to physical health. Specifically, the presence of depression or psychological distress following a cardiac event negatively affects the chances of a successful recovery (McGhee et al., 1999). Recent research also suggests that depression is an important risk factor for the occurrence of a first cardiac event; among people with coronary heart disease (CHD), depression appears to be a more powerful predictor of the occurrence of a cardiac event than the severity of CHD (Rozanski et al., 1999). Third, physical activity represented a potentially important component in the recovery of cardiac patients. Cardiac rehabilitation programmes often include a physical activity component alongside educational information, dietary advice, and social activities. Thus, among cardiac patients, exercise may play an important role in preventing or tackling mental health problems as well as improving psychological quality of life and well-being in general. These factors in themselves are considered to be sufficiently important to be a common goal of cardiac rehabilitation programmes (World Health Organisation, 1993).

Differences between phase one and phase four participants

No significant differences were found between phase one and phase four participants in indicators of psychological well-being (satisfaction with life, anxiety, and depression). Previous research suggests that elevated levels of anxiety are common following MI (McGee et al., 1999) and according to the cut-offs suggested by Zigmond and Snaith (1983) anxiety scores in both phase one and phase four groups indicate the

possible presence of a clinical disorder. Despite phase four participants having several months to recover from cardiac event, the elevated anxiety scores in this group agree with previous findings that suggest anxiety may not decline for several months post-event (McGee et al., 1999). Anxiety therefore is likely to be an important long-term consideration in rehabilitation. Mean depression scores in both phase one and phase four did not indicate the potential presence of a disorder based on the standards recommended by Zigmond and Snaith. The similar levels of satisfaction with life reported by both groups (approximately 70% of scale maximum) offer some support for the theoretical position that broadly based measures such as satisfaction with life can be expected to resist change in response to even serious and acute life events such as a cardiac event.

No significant differences were found between phase one and phase four participants in terms of personality (see Table 2.1). This finding is contrary to the hypotheses which expected phase four patients to report certain personality scores (such as high self-directedness) that might identify them as individuals who had self-selected themselves into a regular exercise rehabilitation group. On the basis of this data therefore, it appears that personality does not affect the decision to participate in a rehabilitation exercise group. The only personality dimension difference that approached statistical significance was harm avoidance. Phase four participants reported a slightly higher harm avoidance score than phase one participants (p=.098). Although speculative, this is an interesting trend that suggests those higher in harm avoidance (fearfulness, worry, etc.) may be more likely to engage in a long-term preventative health behaviour such as exercise rehabilitation.

The only statistically significant differences between phase one and phase four participants concerned the physical activity measures. As expected, the phase four exercisers scored higher on commitment to physical activity and level of physical activity participation each week compared to the phase one participants.

Phase one and phase four compared to population norms

Temperament and character scores in the two cardiac groups were found to differ markedly from the similarly-aged population norms reported by Cloninger and colleagues (1994). Temperament differences were found on all four dimensions in comparison to population norms while phase one and phase four participants scored lower than norms on all three character dimensions (see Table 2.1). These results

suggest some fundamental personality differences between the cardiac patients in the present study and the American population norms. The cross-sectional nature of the data make it impossible to identify with certainty whether the differences were a determinant of the cardiac event, a result of the cardiac event, or a cultural difference between the British and American samples.

On the basis or existing cross-cultural research, little evidence has been found for significant differences in temperament and character scores across nationalities (Brandstrom, Nylander, Przybeck, & Richter, 2000; Carmona et al., 1996; Duijsens et al., 2000; Richter et al., 1999). This consistent finding suggests that the temperament and character differences found here between the cardiac patients and the population norms may be related to the experience of a cardiac event. Although no other research has investigated temperament and character differences between cardiac patients and the general population, some studies have explored a similar issue using alternative conceptions of personality. Of particular note is the Type D personality profile (high negative affectivity and social inhibition) which has been found to relate to both the onset and course of cardiac illness (Denollet & Brutsaert, 1998; Denollet, Vaes, & Brutsaert, 2000). This finding suggests that systematic differences in personality may exist between those who have experienced a cardiac event and the general population.

Relationships among psychological variables

Moderate (around r=.50) positive associations were found between self-directedness and co-operativeness, and reward-dependence and co-operativeness in both groups (see Table 2.2). The presence of these relationships in the phase one and phase four groups agree with the almost identical correlations reported by Cloninger et al. (1994). The key differences with the correlations found in this study and the data provided by Cloninger and colleagues (1994) was the moderate negative correlation between harm avoidance and novelty seeking found in both groups that was absent in Cloninger's data. On the basis of Cloninger's (1999) assertion that temperament is relatively stable across life, it seems unlikely that this difference is a result of experiencing a cardiac event. Similar moderate correlations were found between reward-dependence and self-directedness, and co-operativeness and self-transcendence in phase one patients whereas no relationships were found in phase four participants or in the data of Cloninger et al. (1994). Although the reason for the stronger correlations among phase one participants is unclear, in line with Cloninger's (1999)

conceptualisation of character as developing in response to life events and social learning, it is possible that the recent experience of a cardiac event is associated with temporary changes in character. For example, it may be that social support and relations are particularly important in the period immediately following a serious health event and both reward dependence and co-operativeness are measures of social factors.

Previous research suggests that self-directedness and co-operativeness are related to psychological well-being (Cloninger et al., 1999). Correlational analyses were conducted on the baseline data to investigate this relationship but only partial support for this contention was found. Although the direction of the relationships between self-directedness and co-operativeness and satisfaction with life, anxiety, and depression were in the expected direction, only two of the 12 correlations were statistically significant (see Table 2.2). Both significant relationships concerned self-directedness. The importance of self-directedness is broadly in agreement with other research which has found autonomy and perceptions of personal control to relate positively to psychological well-being (Deci & Ryan, 1995; Kasser & Ryan, 1999; Nix, Ryan, Manly, & Deci, 1999; Reis, Sheldon, Gable, Roscoe, & Ryan, 2000; Ryan & Deci, 2000). A failure to reach statistical significance in the remaining correlations may be attributable in part to the small sample size in the case of the self-directedness correlations. However, a small sample size does not adequately explain the smaller correlations for co-operativeness reported elsewhere (Cloninger et al., 1999). The reasons for this difference are unclear.

Harm avoidance was the only temperament dimension to be significantly correlated with measures of psychological well-being. These findings suggest that harm avoidance and self-directedness may be particularly related to psychological well-being in cardiac patients. It is possible to highlight the inverse link between harm avoidance and, for example, optimism. Other research has found a positive association between optimism and psychological and physical well-being (Peterson, 2000; Scheier & Carver, 1992; Shepperd et al., 1996). Speculatively, it may be that a similar but inverse relationship exists between harm avoidance and psychological and physical well-being.

Personality profile and psychological well-being

In order to more fully explore these relationships four groups were created based on a median split of harm avoidance and self-directedness personality profile (see Table 2.3). When psychological well-being (satisfaction with life, anxiety, and depression)

was examined as a function of personality profile, consistent and potentially important differences emerged. For both satisfaction with life and anxiety, healthier outcomes were found in Profile 1 (high self-directedness/low harm-avoidance) and Profile 2 (high self-directedness/high harm-avoidance) participants compared to Profile 3 and 4 participants. For depression, a healthier outcome was found for Profile 1 than Profiles 2, 3, and 4. In all three instances participants with personality Profile 4 (low self-directedness/high harm-avoidance) reported the lowest levels of psychological well-being (lower satisfaction with life and higher anxiety and depression) whereas Profile 3 consistently scored between the two extremes. These findings are in line with Cloninger and colleagues (1994, 1999) assertions that it is the *interaction* between personality subscales that are most closely related to psychological well-being and mental health. In other words, there is potential for individuals with high or low scores on any *single* subscale to achieve moderate to high levels of psychological health. This is reflected here by the significant differences being between Profile 4 (the least adaptive personality profile) and the other Profiles. On the basis of these results, it is the combination of two subscales (specifically, low self-directedness combined with high harm-avoidance as in Profile 4) that is associated with poor mental health and low subjective well-being. The results of this study therefore suggest that assessment of interactions among personality profile factors may be a useful way of improving understanding of mechanisms involving psychological well-being.

The influence of gender

As a consequence of a higher prevalence of coronary heart disease among men than women (Department of Health, 2001), cardiac research which employs a mixed gender sample generally reports higher numbers of men than women. The percentage of female participants (31% of phase one and 15% of phase four) in this study is slightly higher than other cardiac/personality research which typically reports approximately 5-10% of the sample to be female (e.g., Denollet & Brutsaert, 1997; Denollet et al., 1996; Denollet at al., 2000). Perhaps as a result of the small percentage of females, gender comparisons were not made in any of these studies. Although there were no significant gender differences in this sample, the possibility of gender differences cannot be not ruled out given the small number of females in the sample. On the basis of this data, it is not possible to predict *what* differences might exist; this is a question for future research.

Follow-up sample

Despite the small follow-up sample (n=23) some interesting and potentially important relationships were found (see Table 2.4). Of particular note, physical activity participation at baseline (i.e., prior to hospital admission) was moderately positively correlated with subsequent attendance at rehabilitation. Similarly, physical activity participation at baseline was negatively related to both anxiety and depression at follow-up. However, commitment to physical activity at baseline was unrelated to these variables at follow-up. These findings suggest that physical activity levels of patients prior to MI (rather than how they *feel* about physical activity at baseline) are an important factor in successful recovery during the first 12-weeks after MI. Specifically, those patients who engaged in regular exercise prior to MI were more likely to attend rehabilitation and less likely to experience anxiety or depression at follow-up. This finding suggests that physical activity, as a lifestyle strategy, may help patients cope better with a cardiac event. This finding is in line with some other research which has investigated the role of physical activity in well-being and coping following a health problem (Sorensen, Anderssen, Hjerman, Holme, & Ursin, 1999) but conflicts with other work which suggests it is the *perception* of fitness rather than actual exercise participation which is related to coping (Plante, LeCaptain, & McLain, 2000).

Depression at baseline also emerged as a strong negative predictor of activity participation and commitment to physical activity at follow-up, and a positive predictor of anxiety and depression at follow-up. Those patients with higher depression scores at baseline reported significantly worse psychological well-being and lower levels of exercise at follow-up. Although anxiety at baseline was moderately correlated with depression at follow-up it did not correlate significantly with any physical activity measures. In terms of personality, significant correlations emerged between self-directedness and harm avoidance at baseline and anxiety at follow-up. The small-moderate links with depression were not statistically significant.

The failure of any psychological variables to predict or correlate significantly with rehabilitation attendance is in contrast to some research which has found personality to be a predictor of exercise behaviour and appointment keeping (e.g., Courneya & Hellsten, 1998; Hershberger et al., 1999). A likely reason for this difference is the diverse range of factors which have been shown to influence compliance with rehabilitation programmes (King, Blair, Bild, Dishman, Dubbert,

Marcus et al., 1992). The findings of this work are more in line with research which has found only modest links between specific aspects of personality (such as extroversion) and exercise behaviour (Yeung & Hemsley, 1997). Situational and environmental factors are important influences on patients' attendance at regular rehabilitation sessions and in the case of the present study several participants expressed difficulties such as transport and parking at the city centre rehabilitation location. It is likely that these situational factors played a more significant role in attendance at rehabilitation than psychological variables.

2.5 CONCLUSION

This exploratory study used Cloninger's personality theory to investigate the cardiac rehabilitation process and found some potentially important links between aspects of temperament, character, and psychological well-being among cardiac patients. In particular it appears that a personality profile based on harm avoidance and self-directedness scores may have important links to psychological well-being. Longitudinal results from the follow-up sample suggest some prediction of levels of physical activity at follow-up by psychological variables at baseline. Future work should expand the findings of this study in larger samples of cardiac patients who may be followed and monitored throughout the full rehabilitation process.

2.6 REFLECTIONS ON MOVING FORWARD

As I was carrying out the cardiac study I was forced to become increasingly aware of a major methodological issue which led me to reflect on not only the design and methods of the cardiac research but also its meaning. To a large extent, this process occurred as a direct result of considerable personal contact with the participants. A consequence of the procedure for the cardiac study was that I visited and talked with all forty of the phase one participants – people who had just days before experienced a heart attack. Perhaps as a consequence of the sudden and severe nature of a heart attack – and their situation of having plenty of free time while hospitalised – these bedside conversations were often lengthy and characterised by a surprisingly open, frank, and

honest atmosphere. I felt that several participants used these meetings as an opportunity to confide their thoughts, feelings, and experiences.

This was not a problem in itself. The problem – for me – occurred when I began to question whether the data obtained through the questionnaires was as rich, meaningful, and informative as the personal experiences participants recounted. In short, I began to form the opinion that the questions I was asking through the questionnaires were, if not the *wrong* questions, perhaps not the most important. Returning to my original interest and research purpose, understanding psychological changes through physical activity in a recovery context, I felt that I *understood* the participant's experiences much better through what they *told me* than their questionnaire responses. It is true that the freely spoken remarks were not always focussed on my area of research. Yet I was beginning to feel that there was some significance in what they had themselves chosen as of topic of conversation – what *they* thought was important for a researcher to know rather than what *I* thought should be asked in questionnaire form. Perhaps it was the case that to better understand the broad, individual-specific factors behind psychological change I should be focussing more on the individual and less on theory and measurement technique? In other words, I was starting to feel that I shouldn't discount these 'informal' conversations as this may be precisely where much of the meaning and significance behind individual psychological changes lies.

Two further factors also influenced this change in my thinking. First, the questionnaire pack that I asked the participants to complete was, with the benefit of hindsight, unreasonably long. Perhaps I should have foreseen this issue. I can even remember one member of the department groaning ominously when I was at the photocopier preparing some copies of the questionnaire packs for distribution! A regular comment from participants was that the questionnaire was long and time consuming to complete. If it hadn't been for the exceptional goodwill of this group of participants, perhaps linked to their current health circumstances and a sometimes altruistic desire to help others, it would have been unlikely that the response rate would have been as high as 80%.

The second factor arose as a result of my attendance at the British Psychological Society Conference in July 2001 to present the preliminary findings of the study. In a keynote presentation, Johnston and Bonetti (2001) spoke about problems with psychological self-report instruments. In particular, Johnston presented what was to me a convincing argument that any relationships between two or more self-report

instruments were highly questionable. That is, a participant's response bias would similarly colour responses to each instrument to the point that false relationships could occur that reflected more the response style of the participant than a true relationship. Although a fundamental point, this issue had never really occurred to me – the links between responses to different self-report instruments was, of course, a large part of my study. Although I was also interested in the links between self-report instruments and physical activity behaviour, much of the understanding I hoped to gain was dependent on using aspects of temperament and character to explain changes in mental health and well-being – both measured with self-report techniques.

My reflections on conducting this study led me to question the value of my previous approach to research at a fundamental level. Through practical experience, I was beginning to doubt that a theory driven self-report approach was really getting to the heart of the research questions that I was striving to answer. Looking back, these initial questions paved the way for the changes in methodology and philosophy that would be necessary for me to embark on the second study to investigate the experience of psychological benefits through physical activity for people with a severe and enduring mental health problem.

CHAPTER THREE

PHYSICAL ACTIVITY IN PEOPLE WITH SEVERE AND ENDURING MENTAL ILLNESS

This chapter provides an introduction to the second study. First, some background information about severe and enduring mental illness and its treatment is provided. Second, the potential role that physical activity might take in the lives of people with a severe and enduring mental health problem is discussed. In the third section, the place of a qualitative approach in the field of physical activity and mental health research is considered. Finally, some specific methodological challenges arising from studying the physical activity experiences of people with severe and enduring mental illness are discussed.

3.1 SEVERE AND ENDURING MENTAL ILLNESS

As discussed in chapter one, mental health problems are relatively common. According to the World Health Organisation (2001), as many as one in four adults experience some kind of mental health problem. Although the number of people who experience a severe and enduring mental illness is much smaller, its effects on sufferers are often profound and debilitating. The National Service Framework for Mental Health (Department of Health, 1999) reports that approximately 15,000 people in England experience a mental illness which falls into the severe and enduring category. This figure, however, is uncertain as there is currently little agreement concerning what level of disorder constitutes the label 'severe and enduring' (Slade, Powell, & Strathdee, 1997). In place of a definition, a framework has been proposed (Department of Health, 1996) which focuses on five key dimensions that together indicate the presence of severe and enduring mental illness. Although not all dimensions will necessarily be present in any one individual, the dimensions together provide a general portrayal of severe and enduring mental illness (Childs & Griffiths, 2003). According to the Department of Health (1996), the five dimensions are:

1. *Safety*. Unintentional self-harm (i.e., self-neglect), intentional self-harm, safety of others, and abuse from others are four independent safety risks which are relevant to this population.
2. *Care*. Both formal (e.g., day centres, professional help, hospital admissions, medication, voluntary services) and informal (e.g., family, friends, carers) assistance is usually required.
3. *Diagnosis*. Three-quarters of people with a severe and enduring illness have a diagnosis of schizophrenia or bipolar affective disorder (Repper & Clooney, 1999).
4. *Disability*. Perhaps the primary factor which distinguishes this client group from other mental health service users is the level of disability they experience as a result of their illness (Childs & Griffiths, 2003). This dimension is discussed in more detail below.
5. *Duration*. Recent moves away from institutionalisation towards care in the community initiatives have influenced judgments about duration. Although the traditional use of the term *enduring* referred to a hospital stay in excess of two years (Childs & Griffiths, 2003), more recent definitions refer to the presence of any of the above dimensions for between six months and two years (Department of Health, 1996).

Disability

Disability directly associated with a severe and enduring mental illness can be considered in three key categories (Childs & Griffiths, 2003): (i) *Clinical disability* is often present even in those who are receiving medication. Wing (1978) identified a *clinical poverty syndrome* characterised by,

> underactivity, slowness of thought and movement, flattening of affect, apathy, poverty of speech, and social withdrawal. The experience of having these symptoms, either continuously or periodically, has a major impact on an individual's ability to function in all areas (Childs & Griffiths, 2003, p.204).

(ii) *Social disability* represents a further problem which is likely linked to the poor social networks of many clients and their exclusion from the mainstream community. Both behavioural disturbances (e.g., difficulty relating to others, preoccupation with own thoughts, loss of social awareness) and cognitive impairment (e.g., an inability to process information to meet the social expectations of others) can result in extreme

social withdrawal and isolation (Childs & Griffiths, 2003). (iii) *Cognitive disability* is common among people with severe and enduring illness and "results in impaired performance of routine tasks or activities" (Childs & Griffiths, 2003, p.207). Six cognitive levels have been identified ranging from Level 1 (automatic actions), which indicates the most severe level of disability requiring 24 hour care, to Level 6 (planned actions) which indicates no disability (Allen, 1988). People with a severe and enduring mental illness who have progressed beyond an acute, psychotic phase typically function at Level 4 (Childs & Griffiths, 2003). According to Allen (1988), this level is typified by short attention span, minimal independent or new learning, and some concealment of disability resulting from successful performance of day-to-day activities although coping with new events and anticipating needs requires daily support. According to Childs and Griffiths:

> It is imperative that cognitive disabilities are recognised and people given the appropriate level of support they require to successfully perform day-to-day tasks. The disabilities are so often mistaken for laziness or poor motivation when, in reality, the individual simply cannot, as opposed to will not, perform tasks unsupported (p.208).

Schizophrenia

Schizophrenia is "a tragic and devastating mental illness that usually manifests itself in young people on the threshold of adulthood" (Green et al., 1999, p.224) with "the capacity to disrupt routine daily functions in all areas of life, but especially work, social relationships, and self-care" (Meise & Fleischhacker, 1996, p.9). Because schizophrenia is common among people with severe and enduring mental illness (Repper & Clooney, 1999), the points raised above are highly relevant to most people with schizophrenia. According to Green et al. (1999, p.225), "Its course is characterised by florid symptoms and frequent exacerbations in early illness, followed by a chronic and often downhill progression over time that leads to severe social disability." This negative prognosis is not universal however as the course of the disorder shows considerable variation and is not always chronic or deteriorating (World Health Organisation, 1992).

The acute phase of schizophrenia is generally considered to involve positive symptoms which include auditory hallucinations (i.e., hearing voices), paranoid ideas, delusional beliefs, disrupted or incoherent thoughts, and catatonic behaviour (World Health Organisation, 1992). According to Carpenter (1996), these positive symptoms

may be further distinguished as either *psychosis* (i.e., hallucinations and delusions) or *formal thought disorder* (i.e., dissociative thought processes and disorganisation of thought content). Through either spontaneous remission or effective medication, the individual often moves through the acute stage into an enduring chronic phase characterised by the presence of negative symptoms. Negative symptoms, sometimes more debilitating than positive symptoms, include marked apathy, paucity of speech, blunting of emotional responses, and social withdrawal (World Health Organisation, 1992). Further negative symptoms may include a diminished sense of purpose, diminished spontaneity, and psychomotor retardation (Carpenter, 1996). Five years after onset approximately two thirds of patients "exhibit relatively severe disturbances of social adaptation, such as occupational impairment, residential needs, and problems in social relationships" (Meise & Fleischhacker, 1996, p.9).

Treatment and lifestyle issues

The primary form of treatment for schizophrenia, antipsychotic medication, is widely acknowledged as effective in the treatment of acute episodes of schizophrenia (Allison, Mentore, Heo, Chandler, Cappelleri, Infante, & Weiden, 1999; Green et al., 1999; Meise & Fleischhacker, 1996). However, several problems exist concerning antipsychotic medications. First, "a substantial minority of patients derive little or no benefit from conventional antipsychotics" (Meise & Fleischhacker, 1996, p.10). This problem has been reduced somewhat by the widespread introduction of the new generation of atypical antipsychotic medications which tackle symptoms more effectively (British National Formulary, 2002). Second, antipsychotic medication, while effective in reducing positive symptoms, often has little effect on negative symptoms (Meise & Fleischhacker, 1996). A third problem with antipsychotic medication is the occurrence of severe side-effects. Table 3.1 lists the more prevalent side-effects of both conventional ('typical') and atypical forms of antipsychotic medication.

Of course, compliance is an essential requirement for any form of treatment to be effective. Non-compliance with medication is a considerable problem among people with a severe and enduring illness and one that has been linked with relapse (Allison et al., 1999; Green et al., 1999). With reference to this issue, Meise and Fleischhacker (1996) comment:

> More than 50% of schizophrenic patients either refuse to cooperate from the very beginning or become non-compliant during the course

> of treatment ... The reasons for non-compliance range from the patient's lack of information about the illness to unbearable side-effects (p.11).

It is widely acknowledged that conventional antipsychotics cause a range of severe side-effects which some patients find unacceptable (Allison et al., 1999; BNF, 2002; Green et al., 1999; Meise and Fleischhacker, 1996). Many patients' understandable response to these "unbearable" side-effects is to discontinue medication. This problem has been reduced somewhat by widespread use of the newer atypical antipsychotic medications which "appear to be more effective than the older ones for control of positive and (at least some) negative symptoms, ... are less likely to produce severe neurological side-effects, and are, in general, more acceptable to patients than the older, 'typical' antipsychotics" (Green et al., 1999, p.225).

Atypical antipsychotics are not, however, problem-free. In particular, significant weight gain has been reported to adversely affect compliance (Allison et al., 1999; Green et al., 1999). According to Green and colleagues' review, between 40 and 80% of patients receiving atypical antipsychotic medication experience weight gain which exceeds their ideal body weight by more than 20% (Masand, Blackburn, Ganguli, Goldman, Gorman et al., 1999; Umbricht, Pollack, & Kane, 1994). Allison and colleagues report mean weight increases of up to 4.45kg over just a 10-week period as a direct result of medication, noting that estimates for mean weight gain over the standard treatment course (i.e. a period of several years) would be substantially higher. Under these conditions, "weight gain may also cause patients taking antipsychotic medications to discontinue their medications, which may predispose them to relapse" (Allison et al., 1999, p.1686). Although Allison and colleagues conclude that "for many individuals the degree of risk imposed by the weight gain from a drug will not outweigh the degree of benefit achieved by alleviation of schizophrenic symptoms" (p.1694) they observe that these weight increases are sufficient to move individuals into the 'at risk' category in terms of the health implications of obesity. Given the unhealthy lifestyle of many people with schizophrenia in terms of poor diet, low levels of physical activity, and high prevalence of smoking (Brown, Birtwistle, Roe, & Thompson, 1999), this risk may be considerable.

Table 3.1: Side-effects of antipsychotic medications (taken from British National Formulary, 2002)

Conventional antipsychotics	Atypical antipsychotics
Extrapyramidial symptoms: • Parkinsonian symptoms (e.g. tremor) which may appear gradually • Dystonia (abnormal face and body movements) and dyskinesia (involuntary, fragmented, and uncontrolled bodily movements) which appear after only a few doses • Akathasia (restlessness) which may occur after large initial doses, resembling an exacerbation of the condition being treated • Tardive dyskinesia (rhythmic, involuntary movements of the tongue, face, and jaw) which usually develops following long term therapy or high doses. Often irreversible. Occurs "fairly frequently".	*General side-effects:* • Weight gain • Dizziness • Postural hypotension (especially during initial doses) • Extrapyramidial symptoms (usually mild and transient) • Occasionally tardive dyskinesia on long-term doses • Neuroleptic malignant syndrome has been reported rarely
Other symptoms: • Hypotension and interference with temperature regulation • Neuroleptic malignant syndrome (hyperthermia, fluctuating levels of consciousness, muscular rigidity, autonomic dysfunction with pallor, tachycardia, labile blood pressure, sweating, urinary incontinence) • Drowsiness • Apathy • Agitation • Excitement and insomnia • Convulsions • Gastro-intestinal disturbances • Nasal congestion • Antimuscarinic symptoms (dry mouth, constipation, blurred vision) • Cardiovascular symptoms (arrhythmias) • ECG changes (cases of sudden death have occurred) • Endocrine effects (menstrual disturbances) • Impotence • Weight gain • Blood dyscrasias • Rashes • Jaundice • Purplish pigmentation of skin, cornea, and retina	*Selected drug-specific side-effects:* • Drowsiness or fatigue • Increased appetite • Oedema • Anxiety • Agitation • Confusion • Nausea and vomiting • Rash • Blurred vision • Dry mouth • Constipation • Headache and dizziness • Urinary incontinence and retention • Impaired temperature regulation • Jaundice • Arrhythmias • Respiratory depression • Convulsions • Hyperglycaemia • Impaired concentration • Abdominal pain • Sexual dysfunction • Tachycardia • Hypertension • Rhinitis • Fever • Hyper-salivation • Hepatitis • Delirium

Reflections on mental illness

I have attempted to provide some background information here concerning severe and enduring mental illness and, particularly, schizophrenia. While providing a basic medical understanding of symptoms and treatments, it is questionable whether this background really provides much insight into the experience of mental illness. It is likely that gaining insight into the experience of mental illness is a difficult task:

> The interfacing of a psychotic person with the normal and sane is a jarring and disturbing one for both parties. Once delusions are in place and systematised, no two sets of people have a bigger gulf between them. Be they black and white, male and female, heterosexual and homosexual, the gulf separating them pales literally into insignificance when compared to that between the sane and the floridly insane. (Chadwick, 1997a, p.39)

The positive and negative symptoms of schizophrenia, the psychological and physical health consequences of commonly prescribed antipsychotic medications, and the common co-morbidity of other mental health problems such as depression or paranoia (Burbach, 1997) together mean that individuals with severe and enduring mental illness face huge challenges in negotiating day-to-day life. As Chadwick (a person who has himself experienced a psychotic breakdown) eloquently suggests in the quotation above, it is difficult for others to appreciate the level of these difficulties.

One area where a lack of understanding of the experience of severe and enduring mental illness may be critical is recovery. Despite the effectiveness of modern medications in tackling the positive symptoms of schizophrenia, it seems that something more than symptom removal is needed for a full recovery. In Chadwick's (1997a) words, "despite the quite incredible power of the medication to wipe out symptoms (for which I will always be grateful) the inner feelings of downheartedness and guilt were still there" (p. 48). These feelings relate to Chadwick's observations on other patients' comments on treatment: "psychiatrists 'kept pushing the tablets' and 'wouldn't listen to you'. Also 'the people who help us don't know what it's like' and 'he doesn't listen to my *experiences*, everything's a symptom to be *removed*' and so on" (Chadwick, 1997b, p.581). For people with schizophrenia, it seems, medication, while effective in tackling certain symptoms, is insufficient in terms of prompting recovery. In other words, there is more to achieving positive mental health and a healthy, happy lifestyle than removal of disorder.

3.2 THE POTENTIAL OF PHYSICAL ACTIVITY

Faulkner and Biddle (1999) provide a thorough review of the limited research which has investigated the role of physical activity in contributing to mental health and well-being for people with schizophrenia. The authors identified eight pre-experimental, three quasi-experimental, and one experimental study which focused wholly on people with a diagnosis of chronic schizophrenia. Physical activity forms included running, walking, weight training, aerobic exercise, and unidentified sport which were conducted in organised programmes. Durations ranged from 20-50 minutes with between one and four sessions per week and programmes lasted between eight and twelve weeks. One study investigated free-time, unstructured physical activity participation over a twelve month period.

In terms of negative symptoms, Faulkner and Biddle (1999) found reason for optimism noting that,

> all of the research reports a positive trend in relation to the negative symptoms of schizophrenia. Greater social interest, energising effects, improved behaviour on days of activity and improvements in self-esteem are also reported... (p.451).

Given that all twelve studies focused on people diagnosed with *chronic* schizophrenia (characterised by the existence of more negative than positive symptoms), this finding is significant as, for people with this diagnosis, negative symptoms can be at least as troubling as positive symptoms (World Health Organisation, 1992). Additionally, all studies in the review which assessed depression or anxiety reported reductions from baseline during the course of the exercise programme. According to Faulkner and Biddle (1999), the positive effects of physical activity on clinical depression (e.g. Mutrie, 2000) and anxiety (e.g. Taylor, 2000) reported for other clinical populations may be extended to the large number of people with schizophrenia who also experience depression or anxiety. The tendency of antidepressant and anxiolytic medication to exacerbate psychotic symptoms (British National Formulary, 2002) restricts treatment options for people with schizophrenia who experience co-occurring depression or anxiety. In itself, this provides a further argument for the potential of physical activity as a 'side-effect free' strategy for tackling co-occurring depression or anxiety as well as the negative symptoms of schizophrenia.

In terms of the positive (psychotic) symptoms of schizophrenia, Faulkner and Biddle (1999) were unable to offer conclusions as "no research has attempted to directly investigate the effects of exercise on psychotic symptoms" (p.450). Given the debilitating and serious nature of a psychotic episode, the lack of research is not surprising from an ethical point of view. However, a tentative argument can be made to suggest that a potential role for physical activity in this regard may be as a coping strategy. In their ethnographic study, Faulkner and Sparkes (1999) reported that two individuals utilised exercise as a way of controlling auditory hallucinations, an observation supported by Falloon and Talbot (1981) who noted that as many as three-quarters of people with schizophrenia reported using exercise to cope with auditory hallucinations (c.f. Faulkner & Biddle, 1999).

Finally, physical activity may be particularly important for people with schizophrenia for physical health reasons. Clearly, people with schizophrenia have similar needs for physical health as the general population. It is well accepted that physical inactivity is a threat to health in any population (Bouchard et al., 1994). Further, because of the adverse side-effects of antipsychotic medication on cardiovascular health and body weight it may be *particularly* important that people schizophrenia engage in regular physical activity. As such, exercise can be seen as a practical strategy to combat the physical side-effects of medication. Given the risks of considerable weight gain as a result of treatment with atypical antipsychotic medication, it may be that physical activity has an important role (alongside dietary intervention) in minimising weight gain. The importance of this role is underscored by the recent evidence which suggests that weight loss medication is inappropriate because "the use of pharmacologic agents to treat obesity in individuals with schizophrenia may exacerbate their psychotic symptoms" (Allison et al., 1999, p.1694).

In summary, physical activity has been suggested to offer three specific clinical benefits to people with schizophrenia (Faulkner & Biddle, 1999):

1. A way of reducing negative symptoms (such as apathy, social withdrawal, diminished sense of purpose, psychomotor retardation) and tackling co-occurring depression and anxiety.
2. A way of coping with positive symptoms (such as auditory hallucinations).
3. A way of improving physical health problems which result from lifestyle factors and side-effects of medication (in particular, weight gain).

If physical activity, as a behavioural intervention, is also able to tackle the "inner feelings of downheartedness" and depression that Chadwick (1997a) reports as being untouched by medication, it may prove to be a powerful and important strategy for facilitating long-term recovery.

3.3 A QUALITATIVE APPROACH TO MENTAL HEALTH RESEARCH

As a result of recent calls for greater experimental rigour and control in the study of physical activity and mental health within the current climate of health service research and evidence-based medicine (e.g. Brosse et al., 2002; Burbach, 1997; Lawlor & Hopker, 2001; Martinsen, 1995; Morgan, 1997b), there is pressure on researchers to adopt a positivistic quantitative approach. However, several arguments suggest that the *exclusion* of alternative approaches to research on this basis may be detrimental to progress. Specifically, for the reasons discussed below, qualitative approaches have much to offer and may be ideally suited to certain questions concerning the relationship between mental health and physical activity.

From a philosophical point of view, the positivist approach assumes the presence of certain universal realities, or truths. Locating this assumption in a mental health context, certain social and medical values tend to determine what constitutes mental health and mental illness. These values imply that an individual's degree of mental health is externally assessed against societal norms. Just as critics of positivism (e.g. Kolakowski, 1993) would argue that universal truths do not exist in actual experience (being constructed on the basis of values and perspectives), so it could be argued that the social definition of what is *mentally healthy* is based on illusionary norms. This argument appears to have particular relevance in the case of individuals with a clinical mental health problem as assessment of mental disorder, being based on externally determined criteria (see World Health Organisation, 1992), may be insensitive to certain changes in function following an intervention. For instance, it is not always taken into account that although an objective diagnosis may remain the same, the individual may have made a considerable subjective improvement, perhaps in terms of well-being (Mutrie, 2000). Does the lack of clinically diagnosed change imply that this subjective improvement was meaningless? Although making it through the day without a suicidal thought, for example, may be a largely meaningless achievement for

one person, it may represent important progress for another who is suffering from depression. A qualitative approach offers the potential to construct, on an *individual* basis, what represents a *meaningful* mental health improvement thus being sensitive to a range of possible criteria of success.

Two further intraparadigm critiques of the positivist approach have been raised (Guba & Lincoln, 1994) which link to the notion of meaningful mental health change on an individual basis. First, problems exist concerning whether the hypotheses or theories brought by the researchers (outsiders) bear any relation to the experiences of mental health service users (insiders) (see Guba and Lincoln, 1994 for discussion of the etic/emic dilemma). Although quantitative approaches *can* develop theories on the basis of insiders' experiences, the issue may be more effectively tackled by a qualitative approach, which allows for hypotheses to be *generated* during the course of research in response to issues raised by the participants. In qualitative research it is possible to begin without a firm agenda or expectations, allowing key aspects to emerge during the course of research (Creswell, 1998; Maykut & Morehouse, 1994; Stake, 1995; Wolcott, 2001).

Second, Guba and Lincoln (1994) and Stake (1995) highlight the problem of linking general data, which refers to whole populations, to an individual case. Because the effects of physical activity on mental health are likely to be individual-specific, it is possible that a nomothetic, quantitative group analysis will mask important improvement made by any one individual. In other words, although group means may remain unchanged, it does *not* follow that individuals within the group have not changed (see Van Landuyt, Ekkekakis, Hall, & Petruzzello, 2000). Faulkner and Sparkes (1999) note the highly individualised way in which schizophrenia may affect a person in terms of symptoms, co-morbidities, and response to therapy. Without the ideographic qualitative approach that these authors adopted (focussing on individual cases as opposed to group comparisons) the uniqueness of the individual would likely be missed.

Traditional quantitative, positivist approaches have also been criticised on the basis that they fail to capture the true nature of a phenomenon (Atkinson & Hammersley, 1994). That is, because the randomised controlled trials favoured by evidence-based medicine require the control or elimination of situational or contextual factors, an artificial situation is created. This process of *context-stripping*, in the pursuit of greater precision, potentially reduces the relevance of findings to real world settings

(Guba & Lincoln, 1994; Miller & Crabtree, 2000). This may be critical as the broad context in which physical activity takes place (specifically the social, environmental, and mastery factors that may accompany exercise) are likely to be as important as the exercise itself in stimulating psychological change (Biddle et al., 2000). Eliminating contextual factors would remove some of the potential value of the exercise experience and risk a failure to detect real and meaningful mental health change. It is therefore desirable to study the effects of physical activity on mental health in a naturalistic setting.

Finally, a more subtle issue that arises as a consequence of a reliance on a traditional positivist research approach concerns the opportunity for *theory generation* in addition to *theory testing* (Henwood & Pidgeon, 1993). Traditional quantitative, positivist approaches usually focus on the testing of *a priori* theory which, in the case of physical activity and mental health research, has not always provided conclusive results (e.g. Brosse et al., 2002; Craft & Landers, 1998; Faulkner & Biddle, 1999; Lawlor & Hopker, 2001). Understandably, there is a well-justified problem-solving perspective in much healthcare research, where it is often assumed that answers will be found – in other words, treatments will be identified which cure health problems. When dealing with severe health problems, a cure, or solution, is not always realistic. In the case of mental illness, other goals of treatment or conceptions of success, particularly effective coping and improved quality of life, are paramount. It follows that research with these populations should also generate theory based on improving the quality of life of mentally unwell individuals rather than solely testing traditional theories concerning the elimination of disorder.

3.4 METHODOLOGICAL CHALLENGES

Faulkner and Biddle (1999) identify seven methodological concerns specific to physical activity research among people with severe and enduring mental illness which make experimental research difficult. These difficulties include the individuality of diagnosis, symptoms, treatment, and response to exercise as well as method issues such as the questionable applicability of self-report instruments and the influence of unexpected care-plan alterations.

Access to participants was a further challenge which could only be met as a result of my finding a sympathetic gate-keeper in Sarah (a pseudonym), a

physiotherapist who specialised in mental health. Sarah was based at Redview Lane, a vocational day centre which catered specifically for people with severe and enduring mental illness and she, along with some of the other staff, was enthusiastic about the therapeutic potential of physical activity. Sarah arranged for me to speak with centre's consultant psychiatrist, Peter (another pseudonym), about a possible study. Although Peter, a member of the local ethics committee, was against me using lengthy questionnaires with the clients, he was supportive of a more 'open' qualitative study. Although unspoken during our discussion, I formed the impression that he was concerned that participants were able to have their say instead of being asked to respond to a pre-determined questionnaire. Perhaps my being a student was also an issue. Peter, I think, preferred me to learn by hearing what the clients had to say – being led by them instead of leading them – rather than attempting to impose my own framework on them.

As previously discussed, the psychological, lifestyle, and physical health problems faced by people with severe and enduring mental illness are associated with low levels of physical activity (Brown et al., 1999). The adoption and adherence problems seen in the general population (Dishman, 1994) tend to be more extreme within this client group, thus creating motivation for exercise initiation is a recognised difficulty in mental health settings (Childs & Griffiths, 2003). Sarah, as an experienced leader of physical activity with this population, voiced the issue that adoption and initial adherence was problematic and, consequently, a major aspect of her work. In Sarah's view, even when the adoption and adherence process is successful, group numbers are likely to be small and attendance sporadic. Further, even among those who do participate, improvement (as with any therapeutic intervention) is often slow and difficult to attain. These issues have implications for recruitment of participants. Because asking a client to participate in a research project during the early stages of an exercise programme may discourage subsequent attendance, I needed to find an approach to research that avoided upsetting the delicate process of exercise adoption.

The methodological challenges identified by Faulkner and Biddle (1999), in addition to issues concerning access and recruitment, probably explain why *no* studies employing "rigorous research designs, appropriate and powerful statistical models, and state-of-the-art psychometric methods" (Morgan, 1997b, p.3) have been conducted with this population. While we must clearly strive to generate data in which we can be confident, we would be foolish to write-off, because of an inappropriately rigid

methodological perspective, a therapeutic approach with the practical potential to benefit many people. As Faulkner and Sparkes (1999) note:

> Given the lack of 'scientific' evidence linking exercise and psychological benefits for this population, should we ignore the possibilities? Or should we try our best to report what we find when working with such individuals, using any of the methodological or paradigmatic positions at our disposal and disposition, in order to slowly unravel 'conclusive' evidence through the steady but seemingly inexorable rise of successful 'cases' or 'exemplars'? (p.54)

A qualitative approach with a specific focus on the individual seemed to be most appropriate both for my goal of understanding the process of psychological change as well as meeting the practical challenges arising from conducting research with people who have a severe and enduring mental illness.

CHAPTER FOUR
METHODOLOGY

This chapter addresses three inextricably linked areas of method and methodology which underpin the remainder of this research: (i) philosophical issues of methodology, (ii) research procedure and strategy, (iii) technical issues and research techniques (Sparkes, 1992).

4.1 RATIONALE AND AIMS

As identified in the introduction (p.2), the fundamental research question for this project was: How does psychological change through physical activity occur for people who have (or at risk of) a mental health problem? This question implies a necessary focus on the *process* (or mechanisms) of change. In the context of the research question and the general and specific methodological challenges discussed in chapter three, an appropriate methodological approach was identified. First, a qualitative case-study (ideographic) approach was used in order to allow for the high degree of individual variation in terms of experience of mental illness, treatment package, exercise experience, and potential benefits. The specific value of a qualitative case-study method is the provision of a complex picture, a fuller understanding, and greater insight gained from an in-depth examination of a few individuals (Faulkner & Sparkes, 1999; Stake, 1995). (These issues are discussed further in section 4.2.)

Second, a retrospective biographical approach was adopted to focus specifically on people who were *already* regular exercisers. This approach would provide insight and understanding from others' past experience to enable us to learn what we can from those who have *been there*. In other words, I wished to understand the process through which successful exercisers had passed in order to experience mental health improvement. A focus on changes that had *already* occurred would avoid presenting an additional obstacle to adoption among those commencing an exercise programme as well as remove experimental issues such as adoption and adherence problems and a slow time-frame for change.

In line with this rationale, the study had three aims:

1. To develop an understanding of individual's experience of the process of physical activity in the context of severe and enduring mental illness and their life experiences.
2. To examine the nature of psychological change through physical activity in terms of acute 'right now' responses, daily function and well-being, long-term changes, reduction of symptoms, and improvements in coping and life quality.
3. To explore the place of existing theories in explaining psychological change through physical activity among people with severe and enduring mental illness.

4.2 REFLECTIONS ON MEANING AND INTERPRETATION

Coming from a physical education background I had been part of a culture that tended to have "a strong preference for specific types of utilitarian knowledge" and to hold "a biologistic view of a person that rests on notions of the body as a machine that can be known in every detail" (Sparkes, 2002, p.167). At the outset of this research I was heavily influenced by this background and held, unknowingly perhaps, a positivistic conception of science and knowledge. Accordingly, I was searching for objective answers to my research questions and assumed that, eventually, things would boil down to one absolute truth; that all other answers were therefore wrong. This perspective fitted, for the most part, with the biomedical perspective on treatment and cure in which I had recently become involved (Donaghy, 2003; Miller & Crabtree, 2000). In the medical world, as far as I could see, the primary aim is to change an 'ill' patient to a 'healthy' patient and that, in most instances, there is a single best route (cure or treatment) to achieve this aim. In my own experiences of illness and hospitalisation whenever I have had a health problem I have been interested in one thing only: *getting rid* of it. In other words, obtaining the treatment that would 'fix' whatever it was about me that wasn't 'working'.

This perspective became problematic when I attempted to grapple with alternative philosophical positions which assume realities to be multiple and knowledge to be socially constructed (Creswell, 1998; Maykut & Morehouse, 1994; Wolcott, 2001). In a health context I thought, on the basis of my own experiences, how could anything other than *the illness* be the reality? How could I, when seriously ill, consider

anything other than returning to a state of health? During the early stages of this research, I certainly held the belief that there is a 'reality' which we can come to know or understand and that some form of 'truth' does exist. That is, through conducting good research we could come to better understand how participation in physical activity may lead to mental health and well-being benefits in a general sense. That, at the end of the day, *something* happens when a person exercises that can lead to them benefiting psychologically.

As this research progressed, I began to realise that the automatic implication of Wolcott's (2001, p.33) comment that "there is a there out there" is *not* that there is one clear, gold standard answer waiting to be found. In many ways I have come to see this as being particularly the case in the context of mental health and disorder where the very nature and implications of illness are, to some extent, differently constructed by different social groups. This variety of meaning – the existence of *multiple realities* – applies on two key levels to mental health contexts. First, even the most 'medicalised' and objectified of diagnosis procedures for mental health problems is, at some point, dependent on subjective judgements by another person. For example, in arriving at a diagnosis of depression, subjective decisions are required of the health professional to decide whether or not the specific symptom combination experienced by the individual warrants the label 'clinical depression' (World Health Organisation, 1992). This variability implies that certain symptoms in one individual in one context may be diagnosed as depression, but in another individual in a different context they may not. In other words, diagnoses are ambiguous (Wolcott, 1994).

Second, as several key policy documents identify, it is the social effects of a mental illness that are often the most debilitating (e.g. US DHHS, 1999). That is, factors firmly located beyond and outside of the individual impact on the extent to which *their* illness is disabling. In particular, negative social attitudes towards mental illness (stigmatisation) make the experience of a mental disorder much more damaging, difficult, and disabling for many people (US DHHS, 1999). Clearly there is a role here for different 'realities', or perspectives, to play a major part in the experience of illness and consequently in research which may address that experience.

Importantly, my conversations with many of the participants in the cardiac study provided me with a practical illustration of the value and worth of what one individual has to say – the power of one story. Perhaps, by listening and conversing, it would even be possible to *understand* that person's experiences in a similar way that I was

attempting to *understand* psychological change through exercise. Another person would have a different story but it too could be understood and 'make sense'. I began to see, despite the variety of different accounts I was hearing, that one person's experiences through having a heart attack was no more 'truthful' or 'correct' than another. In the context of the participants in the mental health study, could it be the case that a similar perspective would best explain each person's benefits from exercise? Put another way, that the 'right' explanation for psychological benefits of exercise was similarly varied – and depended on which individual you referred. I was beginning to take the view that, yes, each person may have different things that they got from participation in physical activity – that each person's 'mechanism' could be valid. In short, that there wasn't necessarily *one answer*.

The next problem was how to relate these individual experiences back to some conception of truth – if not in one clear, ultimate form then as a felt difference between the credible and the unlikely. In other words, as some qualitative researchers have put it, does an account or story have the *ring of truth*? Whether a story rings true, then, is a matter for the reader in deciding that it makes sense in the light of their own personal experiences – that it is believable and credible. In terms of this research, was there any way to relate each person's potentially different explanation back to something that can be said to happen *in general*? Or is it simply a case that whatever anybody says works must be accepted as a valid explanation? The only way I could see to resolve this issue was to consider what the participants had to say – were all their stories totally different or was there some underlying theme or order that would allow me to speak of more general understanding?

During the planning stages of this study, through data collection and writing up, I have increasingly been drawn to the philosophical position argued by many qualitative researchers that the individual's story holds independent meaning and value – that it is a legitimate form of knowledge and that generalisation is not necessary (e.g. Creswell, 1998; Sparkes, 2002; Stake, 1995; Wolcott, 2001). In the context of much ignorance among the public surrounding severe mental health problems described earlier perhaps this *understanding of the individual* and a subsequent development of empathy is precisely what people with a mental health problem need most. Rather than quantifying and categorising the details of their illness, behaviours, and difficulties, genuine understanding and empathy from others would go a long way in improving their situation in the social world. This kind of argument has been voiced by Chadwick

(1997b), a person who has experienced psychotic illness. A difficult question, for me, was how does this dramatic change (from my initially positivistic assumptions) fit with the question of trying to understand psychological benefits of exercise? Is it possible to even achieve this kind of generalised understanding while supporting the position that each individual's story is valuable in its own right?

As Murray and Chamberlain (1999) have pointed out, although we need to actually get on with the research without methodology paralysis we *do* need a methodological position – even if it is inconsistent. To be explicit for the purpose of this study, my ontological and epistemological position is in line with that espoused by Wolcott (2001) that there *is* a phenomena out there to be studied but that multiple plausible interpretations of that phenomena are possible. In conducting research from this perspective, I am working from an interpretive paradigm where my central interest concerns the individual *meaning* of events and phenomena (see Sparkes, 1992). As such, my accounts do not represent an exact or transparent account of the world (Fine, 1999, cf. Sparkes, 2002) but rather a partial and incomplete rendering of others' experience. According to Richardson (2000), this position "does allow us to know something without claiming to know everything. Having a partial, located, historical knowledge is still knowing." (p.928) In contrast to quantitative approaches, where meaning emerges through repetition, I primarily adopt an ideographic approach consistent with qualitative, case-study research where meaning is sought within the single instance. This meaning, then, is presented as my *interpretation* of the case (Stake, 1995).

In adopting an interpretive perspective, I am cognizant of Lyon's (1999) discussion on the place of positivist criteria for assessing qualitative research in health psychology:

> Concepts such as reliability, validity, and generalizability are often irrelevant in the evaluation of qualitative research as they are based on assumptions central to the positivist perspective. Qualitative research often concerns itself with meaning, and because meaning in human experience is not likely to be universal, generalization from qualitative research is not relevant (p.247).

Although it is widely acknowledged that generalisation to populations is inappropriate in qualitative research as participants are not a representative 'sample', some argue that alternative forms of generalisation are possible. According to Radley and Chamberlain (2001):

> Case study research involves generalisation to *theoretical propositions*, rather than to populations. This means that it is on conceptual grounds – not statistical ones – that the findings drawn from case studies are tested, revised, or withdrawn (p.324).

In this sense, the findings of my research may subsequently be compared and contrasted to existing theory and might, perhaps, provide new or additional theoretical insights. This process allows the possibility of placing the *lessons learnt* from the individual case in a broader social context.

4.3 REFLECTIONS ON REPRESENTATION

It is not only alternative approaches to *doing* research that may be useful in the field of physical activity and mental health – alternative ways of *representing* that research also offer several potential benefits. A reliance on the traditional scientific tale specifies a particular perspective that must be taken in order to understand and appreciate the reported findings and serves to restrict the potential readership of these accounts (see Sparkes, 2002). Likewise, realist tales are generally constructed by the author to illustrate the author's points and serve to limit the *kinds* of knowledge and understanding that may be communicated (see Sparkes, 2002). Three observations suggest that there is an important role for alternative forms of representation in the field of mental health and physical activity.

First, despite the existing evidence base for the mental health benefits of physical activity, few health professionals have added exercise to their list of treatments. Although Faulkner and Biddle (2001) highlight complex professional and political reasons for this, there is also an argument that the evidence simply doesn't get through to those who work, on a day-to-day basis, in mental health services. It is not necessarily clinical psychologists or psychiatrists who promote exercise. Sarah, for example, is a physiotherapist who promotes and co-ordinates exercise on a daily basis. Additionally, mental health service users typically have a care co-ordinator who takes more of a day-to-day role in their lifestyle than a clinical psychologist or psychiatrist. With a more accessible form of representation perhaps these kinds of people could also be targeted to promote exercise?

Second, as previously discussed, part of the difficulties faced by people with mental health problems are caused through stigmatisation and misunderstanding among large sectors of society over what a mental disorder is and what it means at a personal

level (US DHHS, 1999). As I was about to find out, people with schizophrenia weren't anything like I had imagined them to be – the common stereotype couldn't be further from 'the truth'. Shouldn't this more accurate knowledge and understanding be made available to others (in a more accessible form than a traditional scientific report) who may hold unfair and inaccurate perceptions of people with mental health problems?

Finally, I, as researcher, have some obligation to the participants in this study. Seeing that these participants were making the bold move of telling *me* about their personal (and sometimes painful) experiences didn't I have an obligation to do more with this 'data' than writing it into some generalised, abstract, and distant form? In other words, wasn't there an element of reciprocity in our relationship? Perhaps their stories have something to say independently, and if so, it is my responsibility to find a way of helping them speak – and be heard. Importantly, this might take the form of providing a *voice* to silenced individuals (Creswell, 1998; Sparkes, 1994, 1997) or, perhaps, providing an account which could be used to help other people with a mental health problem begin an exercise programme. (The desire to altruistically help others was cited as a reason for participating in this research by participants.)

As Wolcott (2001) suggests, social research consistently fails to reach a large audience – perhaps as an inevitable result of the way it is most often written and disseminated. Sparkes (2002) has argued convincingly that the traditional approach to scientific writing is hardly reader friendly – that it is unlikely that anyone outside the research community would come to read and understand this form of communication. Were there, then, alternative ways of representing and writing about the research that might make more of an impact and be more persuasive to those who affect the lives of people with a mental health problem? Although new to me, I felt that the creative analytic practices described by Richardson (2000), and the range of alternative representation styles discussed by Sparkes (2002) might be more effective in reaching those people who would not otherwise read research. The basis for my feeling this way, I suppose, was that some of the examples of these forms of writing had reached me in a more powerful and believable way than had any traditional scientific writings. I was, in short, taken by the idea of *showing* rather than *telling* (Denison, 1996) as a way of communicating and building knowledge, empathy, and understanding. Several examples (e.g. Denison, 1996; Dunbar, 1999; Smith, 1999; Sparkes, 1996, 1997; Tsang, 2000) had, I felt, given me a real understanding of another person's experiences. As Denison (1996) suggests:

> To begin, stories show instead of tell; they are less author-centred; they allow the reader to interpret and make meaning, thus recognising that the text has no universal or general claim to authority; and, most important, they effectively communicate what has been learnt (p.352).

Although the communication of knowledge in a literary form may have greater potential to inspire others to action (whether that action is personal change through education, empathy, or understanding; the 'hands-on' tackling of problems in practical ways; or further research) it presents problems in terms of the assessment of quality (Sparkes, 2002). Much discussion has taken place in recent years concerning criteria for judging qualitative research ranging from the positivist replication perspective, the parallel perspective, the diversification perspective, to the letting go perspective (see Sparkes, 2001). It is clear that, as yet, little consensus exists (Lincoln & Guba, 1985; Smith & Deemer, 2000; Sparkes, 1998, 2001; Wolcott, 1994).

In the context of this general lack of consensus, the problem of criteria becomes more intense when it comes to judging alternative forms of representation. Persuasiveness and power to inspire an audience (Feyerabend, 1975 cf. Henwood & Pidgeon, 1993) and the notion of creating empathy in the reader (von Wright, 1993) are two possible benchmarks for judging the value of alternative research accounts. Sparkes (2003) provided an extensive list of other criteria by which to judge alternative forms of representation: insightfulness, substantive contribution, comprehensiveness, coherence, fairness, respectful, engaging, empathetic, authentic, innovative, original, reflexive, parsimony, verisimilitude, impact, credibility, evocative, usefulness for audience, alternative interpretation, plausibility, believability, and lessons to be learnt.

> Sparkes (2001) suggests that,
>
> Traditional criteria are able to coexist with newer criteria, depending on the researcher's ontological, epistemological, and political leanings and assumptions as well as their situational requirements. Therefore, the replication, parallel, diversification, and letting-go perspectives, each with its own prejudices, can coexist (p.549).

In terms of this study, therefore, potential criteria for judgement may vary in a similar way according to the form of representation employed. Realist tales are, perhaps, amenable to being assessed according to the parallel perspective criteria discussed by Lincoln and Guba (1985): credibility, transferability, dependability, and confirmability. Conversely, ethnographic fictions require alternative criteria. Eight emerging criteria,

which have recently been proposed (see Sparkes, 2002), are particularly suitable for this study:

- *Substantive contribution.* Does this piece contribute to our *understanding* of social life? Does the writer demonstrate a deeply grounded (if embedded) social scientific perspective? How has this perspective informed the construction of the text?

- *Impact.* Does this affect me? Emotionally? Intellectually? Does it generate new questions? Move me to write? Move me to try new research practices? Move me to action?

- *Expression of a reality.* Does this text embody a fleshed out, embodied sense of lived experience? Does it seem "true" – a credible account of a cultural, social, individual, or communal sense of the "real"?

(Richardson, 2000, p.937)

- *Coherence: The way different parts of the interpretation create a complete and meaningful picture.* Coherence can be evaluated both internally, in terms of how the parts fit together, and externally, namely, against existing theories and previous research.

- *Insightfulness: The sense of innovation and originality in the presentation of the story and its analysis.* Close to this criterion is the question of whether reading the analysis of the life history of an "other" has resulted in greater comprehension and insight regarding the reader's own life.

(Lieblich, Tuval-Mashiach, & Zilber, 1998, p. 173)

- *Fairness* was thought to be a quality of balance; that is, all stake-holder views, perspectives, claims, concerns, and voices should be apparent in the text.

(Lincoln & Guba, 2000, p.180)

- *Evocation.* The validity of evocative storytelling is best judged by whether it evokes in the reader a feeling that the experience described is authentic, believable, and possible.

- *Authenticity* emerges when the text conveys the feeling tone of the life or lives as lived. The feeling tone is best conveyed when the text itself admits and invites the reader into a vicarious experience (however brief) of the life or lives being described. If this invitation is taken up, then the reader might gain an experience of the lives in the round, with a range of mood, feeling, experience, situational variety, and language. Consequently, the reader can come away from such a text with a heightened sensitivity to the life or lives being depicted and with some flavour of the kinds of events, characters, and social circumstances that circumscribed those lives.

(Sparkes, 2001, p.546-547)

In chapter eight, I return to discuss the extent to which these criteria have been met in this research. My proposal here, and discussion later, of appropriate criteria should be considered by the reader as suggestions or guidance as, ultimately, it is the reader who must decide for themselves the worth and value of these alternative forms of representation. As author, the best that I can offer is the considered recommendations of Garratt and Hodgkinson (1998) who,

> argued against choosing any list of universal criteria in advance of reading a piece of research. This is because to do so would foist on research artificial categories of judgment, preconceptions of what research should be, and a framework of a priori conditions that may be impossible or inappropriate to meet... (Sparkes, 2001, p.549-550).

4.4 PARTICIPANTS

This study focused on Ben, Colin, Mark, and Shaun (all pseudonyms), four individuals with a severe and enduring mental health problem who were participating in regular physical activity. Ben, Colin, Mark, and Shaun had been mental health service users for between four and eighteen years and at the time of recruitment their diagnoses included the term 'schizophrenia' or 'schizophrenic illness' usually accompanied by a co-occurring mental health problem. For all participants, the severity of their mental health problems precluded paid employment since the initial acute phase of illness, although Ben began part-time voluntary work around the time that the study was taking place. Further details of each individual's background are provided in the case reports.

Because of the focus of this study, it was also necessary to recruit participants who were regularly exercising. Given the typically low levels of physical activity of this population (Brown et al., 1999) *regular* physical activity was loosely conceptualised as more than one exercise session per week. All four participants had begun their current physical activity participation at Redview Lane under the guidance of Sarah and Catherine (a previous physiotherapist). The physical activity sessions therefore formed part of each individual's weekly schedule and were seen as an important and integral component of their rehabilitation programme.

As a result of these considerations, a strategy of purposive sampling (Glaser & Strauss, 1967) was used in an effort to identify and recruit participants who could

provide the most insight concerning the experience of physical activity from the perspective of people with a severe and enduring mental health problem.

Redview Lane day centre

The participants were, at the time, trainees at Redview Lane, a vocational assessment and training day centre. Trainees attended the centre from one to five days per week where they engaged in occupational and vocational training (such as office skills, woodwork, and catering), creative activities, physical activity groups, and social activities. The mental health teams based at the centre include psychiatrists, clinical psychologists, physiotherapists and assistants, occupational therapists and assistants, and support staff. The goal of the centre is identified as *rehabilitation.* The centre aims, therefore, to help clients achieve a healthy, independent lifestyle in terms of employment (voluntary or paid), housing arrangements, and family/social life. Client spaces at Redview Lane are limited; potential trainees are typically referred by mental health services before being assessed at Redview Lane as to their suitability for the programme. Those who are accepted into the programme are assigned a care coordinator who negotiates a personally appropriate activity programme with each trainee in conjunction with the mental health team.

Recruitment

As a result of the access and ethical dilemmas of conducting research with a vulnerable population, I liaised closely with mental health professionals in the identification and recruitment of potential participants. This liaison was particularly important to avoid approaching participants whose mental health problems suggested that participation in the study might have adverse effects for their psychological well-being. Specifically, Sarah initially noted individuals whom she felt might be suitable and willing to take part on the basis of both their involvement in physical activity and her professional opinion that they were 'well enough' to take part in interviews. This judgement included consideration of the individual's mental health stability in terms of whether or not the interview process would be manageable for them or whether it might represent a threat to their psychological well-being.

Before approaching a potential participant about the study, Sarah suggested that we should allow the individual to 'get to know' me a little. This in part, was achieved

by my presence at Redview Lane during the course of the research but also, importantly, by me participating in the five-a-side football group on a regular basis. All four participants, at some stage, played in this weekly session and my membership of the group allowed them to become more familiar with me (and me to become more familiar with them) in a relaxed and friendly setting.

Once some degree of familiarity was established between myself and the potential participant, Sarah and I together approached the individual privately and informally about taking part in the research. I provided background information about the study (see appendix 4a) and invited them to take part, explaining the need for informed consent (see appendix 4b). All participation was voluntary and we were careful to avoid coercing any individual to take part. Informed consent was obtained from all participants[1] in order to satisfy the ethical approval granted by the Research Ethics Committee, Royal United Hospital, Bath NHS Trust, Combe Park, Bath.

4.5 PROCEDURES

A retrospective case-study approach was taken to focus specifically on the individual's *exercise career* in order to address the experiences and psychological factors that they have found to be important in the context of both physical activity and mental illness. According to Stake (1995), "The case is a specific, a complex, functioning thing" (p.2) – in the context of this research, *the case* became the individual in his social network. Consequently, this research comprises four independent case studies. In an effort to develop comprehensive and complex accounts of each case, triangulation of both data sources and data gathering methods was employed (Creswell, 1998). The range of data sources and data gathering methods are discussed below and summarised in Table 4.1.

Interviews

Semi-structured interviews were conducted and tape-recorded, serving as the principle method of data collection. The interviews, being a form of organised social discourse (Mathieson, 1999), involved interaction between the participant and researcher (myself) which deliberately focussed on issues that were considered to relate

[1] Sarah suggested six possible participants but two were unwilling to take part in the study.

to the research question. A semi-structured approach was chosen in order to provide some degree of framework for the interview while allowing the opportunity to pursue relevant issues as they arose (Fontana & Frey, 1994). The freedom to break from the interview schedule to discuss topics raised by participants was considered important in helping to reduce potential inequality or power differential between the participant and my position as researcher (see Mathieson, 1999). Because of the importance of the interaction between participant and interviewer in creating the substance and meaning of the dialogue, the establishment of good rapport between participant and interviewer (Fontana & Frey, 1994) and an *active* approach to listening was important in recognition that,

> the participant discovers new patterns and relationships while talking. The interviewer interprets and reflects back what is heard, summarising and condensing information. In other words the interview is truly being 'co-authored'... The interviewer is transformed into a listener by understanding, indeed by believing, that she is an active participant in the process and that without her presence the space would not be created for these particular illness stories to be told at this time... this means not appropriating what is said to pre-existing ideas, but listening carefully to what is missing or not said, and intentionally probing the language and the meaning of the narrator's stories. (Mathieson, 1999, p.129)

The interview schedules (see example in appendix 5) began with four basic questions about the individual's physical activity participation. This topic was selected as a relatively 'safe' starting point that would allow the participant to talk freely about their own current experience while minimising possible perceived threat by raising sensitive issues. It was considered particularly important at the start of the interview to establish rapport and avoid probing issues around their personal experience of mental illness to help the participant relax and feel comfortable. The next three questions investigated previous exercise participation prior to the onset of mental health problems. The third section probed psychological responses to exercise beginning with a general question seeking unprompted ideas from the participant. The remainder of this section developed the individual's response to this question by seeking clarification, details, and possible alternatives. The fourth section of the schedule sought to investigate specific mechanisms or explanations for the individual's psychological responses beginning with a general question before probing specific theoretical issues such as social support and relations, autonomy, competence and achievement, and identity. Finally, questions

were posed concerning the perceived place of physical activity in the participant's future and personal problems with physical activity. Descriptive questions (to learn about the participant's activities and experiences), structured questions (to investigate specific details of these activities and experiences), and contrast questions (to clarify and check meaning and interpretation) were used throughout the interview in an effort to generate a comprehensive and complex understanding of individual experience (Biddle, Markland, Gilbourne, Chatzisarantis, & Sparkes, 2001).

This basic interview schedule was used as a template for the first interviews with each participant but was adjusted to some extent in response to the lessons learnt from the preceding interviews. Specifically, new or unexpected issues which were raised during early interviews were added to the schedule that was used with subsequent participants. One example of this was the importance of body weight issues as a potential motivator for physical activity. Follow-up interviews were conducted in a somewhat less structured format where particular issues were pursued that had emerged as important during previous interviews. In keeping with the *semi*-structured nature of the interviews, the schedules were fairly loosely followed. The needs and issues raised by the individual participant, to some extent, served to re-direct the course of the interview as potentially relevant or important topics were raised.

Additional semi-structured interviews were also conducted with at least one mental health professional who was familiar with each participant having worked with them over a period of time. This informant was either a care coordinator, psychologist, physiotherapist, or exercise leader. Information from this alternative source was sought in order to permit greater confidence in the results obtained through client interview, provide further insight into individual changes that may have been witnessed by the mental health professional, and explore possible alternative interpretations (see Stake, 1995). Several individuals were interviewed (all pseudonyms): Susan (clinical psychologist), Sarah (physiotherapist), Simon (exercise leader), Lynn (care coordinator), Greg (work area manager). Additionally, Catherine (a previous physiotherapist) is also mentioned in the reports but could not be interviewed as she had since changed employment.

Medical records

Silverman (2000) questions an over-reliance on interviews as an approach to data gathering when data may be obtained through documentary analysis. Documentary

data was available in Ben, Colin, Mark, and Shaun's medical files which recorded background information on mental illness, diagnosis, and treatment. Indeed, the use of this information was particularly important in this study. Because Ben, Colin, Mark, and Shaun were experiencing severe and enduring mental health problems they were all receiving a range of pharmacological, psychological, and occupational treatments (in addition to physical activity). These interventions co-occurred with physical activity and changed over the time that each individual was exercising implying that any of these treatment factors, in addition to other life events, might have resulted in mental health change. In an effort to create a comprehensive, complex, and balanced picture of the individual's experiences, documentary information was therefore sought from the participant's medical records and notes. Information was examined concerning a range of potentially significant events: family, education, employment, and mental health background; periods of hospitalisation; changes in medication type and dose; periods of psychological, behavioural, or alternative therapies; participation in exercise programmes; and other key life-events that might have been implicated in mental health change.

Three factors influenced my decision to utilise participants' medical records as an additional source of information. First, I wanted to avoid interviewing participants, who still had serious mental health problems and were potentially sensitive to discussions about their past, about biographical information that was already documented elsewhere. Second, as is often the case for people with enduring mental health problems, none of the mental health professionals at Redview Lane had known the participants prior to recent years and were therefore unable to comment on earlier phases of the participants' illness. The medical records documented each participant's illness since onset. Third, I hoped that the medical records might provide some form of triangulation of the interview and observational data. The medical records provided an additional, somewhat formalised (medical) perspective on the individual's experiences which focused specifically on general background, medical assessments, and treatment history. In short, the participant's medical records offered a valuable source of information and an alternative perspective towards understanding which was (unusually) made available by the ethics committee. While careful handling was essential in order to maintain confidentiality, obtaining historical information from existing records reduced demands on each participant in terms of both interview time and avoiding repeat discussion of sensitive topics.

For several reasons, the task of locating and obtaining information from the medical records was challenging. First, the participants' files were extensive as all four had been mental health service users for several years. Colin's records, for example, comprised two files each about four inches thick. Second, for reasons of confidentiality, I was unable to remove the files from the Redview Lane file room and, clearly, photocopying documents was inappropriate. Third, details contained in the files were often of a personal nature which potentially compromised anonymity. As a result of these issues, it was necessary to be careful and selective in terms of which information I should include both in my personal notes and the final case report. Specifically, for ethical reasons and to preserve anonymity, I included only that information which I felt was necessary to create a thorough and complete understanding of the role of physical activity in the individual's life without compromising the identity of participants.

Participant observation

According to Wolcott (2001), participant observation is the primary method of data collection in qualitative research. Stake (1995) believes that the preferred way of collecting data in case-study work is through observation as this allows researchers themselves to see phenomena in action rather than relying on an informant's interpretation. However, observation fails to allow the participant to voice their own thoughts, explanations, or perspectives. As such, observation provides only one form of knowledge which does not allow understanding of the participant's own meanings. Three further practical problems in the context of this study imply that observation alone would be insufficient. First, the retrospective nature of the inquiry implies that the changes of interest have, to some extent, *already* occurred. Second, psychological changes are difficult to observe – they must be either inferred (for example, from behaviour) or understood through personal verbal communication with the individual. Third, in the context of mental health problems where change is often slow, it may be practically impossible to observe for long enough to witness change.

That said, participant observation offered an approach which might complement the interviews and analysis of documentary information. In particular, it allowed me to gain an impression of the accuracy of my interpretations of the participant and staff accounts -- to see whether what had been said seemed to apply in practice. Importantly, the process of participant observation provided a valuable opportunity to establish rapport and positive relations with participants and mental health staff. As such, the use

of observational data in this study is as a broad overview which provides an underlying understanding and context to the interview and documentary data reported. It contributes an increased sense of the *personal* in my experiences with Ben, Mark, Colin, and Shaun which, perhaps, reaches the reader through the narrative.

Potential problems

The procedures used in this study follow the broadly recommended techniques of qualitative case-study research (see Creswell, 1998; Stake, 1995) that, under normal circumstances, are relatively straightforward and simple. For two clear reasons, however, these normally straightforward practices had a tendency to become problematic in the specific context of this study. First, the nature of the participants' illness, and the experiences that had accompanied it, were at times challenging, painful, and personal in nature. This implied that investigation of participants' lives led into confidential areas documented in individual medical records (for example, family history, medication prescription, clinician psychological assessments, employment records, and criminal records). Second, the nature of severe mental illness itself, created tensions and difficulties with even the most simple and straightforward research practices.

Specifically, tasks such as providing information about the study, obtaining informed consent, and interviewing in a private room became issues that had the potential to cause distress and possibly result in discontinued participation for people who had already experienced a high degree of personal investigation through assessment, diagnosis, and treatment of their mental health problems. A further example was the standard practice of tape recording the interview for subsequent transcription. Sarah initially raised this potential problem, warning me that, particularly for people with an anxiety disorder or paranoid tendencies, the operation of a tape recorder could be extremely threatening.

The combination of these considerations, and their potential threat to both participants' well-being and their involvement in the study, implied that, for me, the first priority was to avoid creating additional problems for participants on top of their existing mental health problems. Two key approaches were adopted in an effort to minimise this risk. First, as previously discussed, potential participants were only approached once we had become familiar with each other. When they were asked to participate, it was done in a friendly, non-threatening manner – the voluntary nature of

participation was emphasised. Second, once in the interview setting, I attempted to be sensitive to the atmosphere and non-verbal communications of the participant. For example, changes in body language, long pauses, and facial expressions were all indicators of potential problems. When I recognised such a risk, I attempted to 'steer' the interview into safer territory by asking less difficult questions, using humour, making the problem explicit (i.e. asking "is everything OK?"), suggesting we stop for a cup of tea, or even postponing the interview.

A word on authorial presence

As researcher, I am an integral part of the research process (Creswell, 1998; Maykut & Morehouse, 1994; Stake, 1995; Wolcott, 2001). My own background, experiences, biases, and assumptions potentially affect any outcomes and interpretations of this research. For this reason, it is necessary to provide brief information on my personal perspective (Stake, 1995). My interest in the topic stems from a combination of personal experience of psychological changes through various forms of physical activity, previous employment as a care-worker with people with learning disabilities which were often complicated by mental health concerns, and a professional interest generated through undergraduate and postgraduate study in exercise and health science. As such, I believe that physical activity *can* offer mental health benefits although not necessarily to all people, all of the time. In my approach I strive for an empathetic understanding of people who have a mental health problem and therefore I seek to assume a supportive and accepting stance whenever I am engaged in work, research, or social interaction with an individual with a mental health problem.

4.6 ANALYSIS

All tape-recorded interviews were transcribed verbatim before a process of repeated close reading was conducted in order to become immersed in the data and begin to understanding the participant's experiences (Maykut & Morehouse, 1994). During the readings, marginal notes were made to highlight key areas of insight and content summary sheets were used to clarify contextual ambiguity where possible (Miles & Huberman, 1994). A thematic (content) analysis was conducted to identify and code themes arising from the data (Biddle et al., 2001) and quotations were used as

the unit of analysis (Coffey & Atkinson, 1996). These quotations were kept large in an effort to retain context and personalisation.

In conducting the thematic analysis I attempted to ensure that interpretable and meaningful themes and categories emerged directly from the data – in other words, that I employed an *inductive* approach to analysis (Scanlan, Ravizza, & Stein, 1989). However, in line with the comments of Schwandt (1997), I am cautious about making any claim of a wholly inductive analysis having taken place. Specifically, I am aware that I began this study with some established theoretical perspectives which guided my questions during the interviews and, more generally, my inquiry into the participants' experiences. Additionally, it is impossible to conceive that these theoretical issues did not influence the analysis process. Therefore, with hindsight it is likely that the thematic analysis was a combination of inductive and deductive processes. My strategy for maintaining at least an element of inductive analysis was to check for repetition of themes and to reflexively employ alternative analysis strategies such as key word in context lists (Ryan & Bernard, 2000) which searched for words with the suffix *–ing* to gain an overall feel for the 'tone' of the data.

The second stage of analysis involved compiling the obtained codes, relating to the specific theme and the location of the quotation within the transcript, on a single, large-scale mental map (Ryan & Bernard, 2000). Through a process of pattern coding (Miles & Huberman, 1994), I organised the coded quotations in an ordered or semi-ordered format according to theme. When an important issue did not fit an existing theme then a new theme or hybrid was created. Using the mental map, which displayed summaries of the data on a single sheet for simultaneous visibility (Miles & Huberman, 1994), potential links and relationships within the data were developed and explored. Initially, the early stages part of the analysis process was conducted using the NUD-IST software package to facilitate identification, organisation, and display of themes and quotes. However, in subsequent analyses I employed a comparable traditional paper-based approach as I felt that this electronic process prevented me from gaining the real 'hands on' feel for the data.

A third major phase of analysis involved coordinating and linking the historical data from the participant's medical records. The issues discussed earlier concerning the length and scope of each individual's medical records implied that a process of data reduction was necessary. I attempted to effectively manage this process by making extensive notes directly from the files themselves during visits to the file room at

Redview Lane. These notes focussed on issues which appeared to be closely related to the individual's mental health experiences through physical activity. These hand-written notes were then anonymised and transferred to a computerised word-processing programme where they were organised and edited. From this resource, I then wrote a narrative summary to document the individual's experiences as represented by their medical records. Key moments from these narratives were then integrated into the mental map through a process of comparing and contrasting information with the participant's own accounts and those of their mental health professionals.

Contributing to the analysis process were the comments of a research colleague and my advisor, both of whom read transcripts and offered alternative interpretations. Where possible and relevant, I included these comments in the case reports themselves. Although member-checking is often recommended as an effective strategy to increase confidence in our interpretations (Lincoln & Guba, 1985), it seemed inappropriate to take accounts back to individual participants given the personal and sometimes painful nature of the subject matter. In the context of severe and enduring mental illness, the topic of conversation was sometimes difficult for the participant; a subsequent return to those topics seemed an unfair burden to place on participants. In order to compensate for this, I discussed my interpretations informally with Sarah in an effort to at least gain some feeling of consensus or difference with regard to key areas before sending her drafts of each case report for comment.

The fourth stage of analysis involved the development of a series of charts and matrices for each participant. These one-page displays "show reduced, organised, and focused data on a single page" (Miles & Huberman, 1994, p.93) thereby condensing data for easy visual inspection. Contained within some of these displays are eloquent statements and powerful phrases which communicate some understanding of the participant's own meanings and experiences. The process of developing the displays served not only to increase and check my own understanding but also to effectively communicate basic information to the reader in accordance with Miles and Huberman's (1994) suggestion that "you know what you display" (p.91). Specifically, a time-ordered matrix and life-phase matrix was constructed for each participant. The analysis process for each participant is summarised in Table 4.1 while key matrices and charts are presented in appendix 6. These charts and matrices, together with the transcripts, rules for thematic inclusion, mental maps, contact summary sheets, documentary notes,

and reflective notes provide an audit trail which helps make the analysis procedure more explicit (Maykut & Morehouse, 1994).

A critical aspect of the analysis process was the actual writing of the case reports – it is important that the task of writing be recognised as such. As Miles and Huberman (1994) state, "writing *is* thinking, not the report of thought" (p.101). It was during the process of writing, attempting to describe and explain complex phenomena, that my own understanding was most rigorously tested as I attempted to make sense of the data. From this perspective, my efforts to represent the data in different ways were essential in developing different interpretations and types of understanding of the data (Richardson, 2000). In Stake's (1995) terms, "qualitative study capitalises on ordinary ways of making sense" (p.72) that involve exposure to new and unfamiliar phenomena which gradually begin to make sense through a succession of links to both previous experiences or patterns and new insights or perspectives. This description fits my own process of understanding where intuitive, perhaps artful, processing contributed to the search for meaning:

> Where thoughts come from, whence meaning, remains a mystery. The page does not write itself, but by finding, for analysis, the right ambiance, the right moment, by reading and rereading accounts, by deep thinking, then understanding creeps forward and your page is printed (Stake, 1995, p.73).

Perhaps most importantly, "each researcher needs, through experience and reflection, to find the forms of analysis that work for him or her" (Stake, 1995, p.77). The initial process of intrinsic case study, utilising an individual profiling (within cases) approach to understand each case in its complexity, seemed to work for me in this context. In essence, I attempted to avoid over-analysis while attending to the important requirement of thick description, preferring to, as recommended by Wolcott (2001), do less – more thoroughly. A subsequent cross-case analysis took something of an instrumental case study perspective (Stake, 1995) to investigate key themes and experiences *across* participants. The rationale and procedure for this analysis is reported in chapter seven.

Table 4.1: Summary of data collection and analysis procedures

Participant	Data gathering	Data analysis
Ben	• Two one-hour interviews with Ben • One 40-minute focus-group interview with Ben, his physiotherapist (Sarah), and his psychologist (Susan) • Informal discussions with two mental health professionals who worked with Ben (Sarah and Greg) • Medical notes and records • Participant observation and informal conversations over a four month period	• Contact summary sheets • Transcription and coding of interviews • Repeated readings of transcripts and addition of marginal remarks • Written and verbal observations of two colleagues • Grouping of key quotes and issues into 21 initial themes using NUD-IST software • Re-analysis producing 14 broad themes • Mental mapping of case data • Key word in context analysis • Development of time ordered matrix • Development of life phase matrix • Writing of ethnographic fiction • Writing of case report
Mark	• Participant observation and informal conversation over a four month period • 40-minute interview with Mark • 20-minute interview with Simon (Mark's physical activity leader) • Informal interviews and discussions with Sarah (Mark's physiotherapist) • Medical notes and records	• Contact summary sheets • Transcription and coding of interviews • Repeated readings of transcripts and addition of marginal remarks • Written and verbal observations of two colleagues • Grouping of key quotes and issues into 11 broad themes • Mental mapping of case data • Key word in context analysis • Development of time ordered matrix • Development of life phase matrix • Writing of ethnographic fiction • Writing of case report
Colin	• Participant observation and informal conversation over six month period • 75-minute interview with Colin • 45-minute interview with Lynn (Colin's care coordinator) • 20-minute interview with Simon (Colin's physical activity leader) • Informal interviews and discussions with Sarah (Colin's physiotherapist) • Medical notes and records	• Contact summary sheets • Transcription and coding of interviews • Repeated readings of transcripts and addition of marginal remarks • Written and verbal observations of two colleagues • Grouping of key quotes and issues into 11 broad themes • Mental mapping of case data • Key word in context analysis • Development of time ordered matrix • Development of life phase matrix • Writing of ethnographic fiction • Writing of case report

Shaun	• Participant observation and informal conversations over three month period • 50-minute interview with Shaun (with Sarah present) • 20-minute interview with Simon (Shaun's physical activity leader) • 15-minute interview and informal discussions with Sarah (Shaun's physiotherapist) • Medical notes and records	• Contact summary sheets • Transcription and coding of interviews • Repeated readings of transcripts and addition of marginal remarks • Written and verbal observations of two colleagues • Grouping of key quotes and issues into 13 broad themes • Mental mapping of case data • Key word in context analysis • Development of time ordered matrix • Development of themed quotes table • Writing of ethnographic fiction • Writing of case report

CHAPTER FIVE
CASE STUDIES

This chapter presents four case studies titled *The long run, Starting afresh, The future's looking bright,* and *Engaged in the game* which relate to Ben, Mark, Colin, and Shaun's experiences respectively. Each case study opens with is a brief ethnographic fiction to communicate an initial feel for each individual's story. A similar process has been employed by Seidman (1998) where participant 'profiles' were presented to communicate stories in the participants' own words. The ethnographic fictions presented here comprise between 80% and 98% of the participants' own words taken verbatim from the interview transcripts. I added the remaining words in an attempt to provide a clear, smooth, and comprehensible account which retains the original context of the remarks. For example, I expanded Colin's response to my question of when he last swam from, "I would say about a month ago" to, "I would say *the last time I swam was* about a month ago" to clarify context. The first three ethnographic fictions (for Ben, Mark, and Colin) are presented in the participant's own voice (i.e., the first person). The final tale (Shaun) is presented in the voice of Simon, a physiotherapy assistant and exercise leader who had known Shaun for several years. Following each ethnographic fiction, I provide a detailed realist account of the research findings before offering some conclusions on the particular case.

Additionally, several tables are provided in appendix 6 to rapidly communicate a description of each participant's experiences. First, a time ordered matrix of key events provides a condensed summary of each person's mental illness experiences taken from his medical records. Second, a life phase matrix is included to provide a snap-shot, in the participants' words, of key themes across the phases of each individual's life. Finally, a key word in context analysis is also reported to provide an overall feeling of tone.

5.1 THE LONG RUN

It's a fear of a fear really. You're just frightened and you don't know why. Everything becomes out of touch. You're just frightened to death for some reason and you don't know why. The fear is so intense it just gets a grip of you. That's what a panic attack's like. And it lasts for about an hour, something like that. Then it's gone again. And then you think, well you know, what was I worried about? Then all of a sudden, you'll be alright for a few days or a few weeks, and all of a sudden you'll go out running and it'll come back again. I had it in the last half marathon I ran. Not only was I thinking of keeping going, I had to deal with a panic attack as well. So I went 13 miles and I was in the panic attack all the way round. I got out of it as I finished and had a shower and as I was in the shower it just disappeared. I was alright.

I can sometimes bring it on. 'Cause I get so tensed up about the race, nervous, that I actually bring an attack on. So really I've got to try and concentrate on focusing on not having the attack – just getting round all the race. Sometimes if I can divert my thought I'll be OK. All I've got to do is divert my thought. But it's hard to do. You've got to try and take your mind off it for a few seconds and then … it's gone. So I can get through it sometimes. Other times I need to lay down – I can't beat it.

I used to do half marathons before I was unwell. When I was 21 I saw marathons on the TV and thought, "I'll have a go at them!" I started with a friend and we gradually built up, sort of went through the pain barrier together. We ran to Dilsley Common and shook hands afterwards, it was a real feat to actually do it, we'd conquered it – we *actually* got there. I got the running bug then. Later that year I did a six miler, then a few half marathons and eventually a few 20 milers. Then when I was 29 I became unwell. For four years I didn't do anything; I went up to 21 stones.

When I first started getting unwell I had a paranoia illness. Psychosis. Thinking people were following me and stuff like that. I had a lot of things go wrong – a marriage break up, a lot of failures, too much stress – and I was running and I think that was stressing me out as well. I was overdoing it, at everything I was overdoing it, and it sort of spiralled out of control.

When I became unwell I stopped exercise – I became so unwell that I couldn't do it. The medication was making me worse, it made me put on a lot of weight and I couldn't do any exercise anyway I was so overweight. Then I had a change in the medication. When I got the right medication I felt better and I thought to myself, well,

I'll get back into running and keeping fit again. The medication made me well enough to think about my appearance 'cause before I was neglecting myself. But then I started shaving and bathing, and I got to that stage and I had the confidence to come to Redview Lane every day and then eventually I wanted to do exercise again.

I started exercising gradually with Catherine, one of the physios. I'd go to the gym, and I'd go on the bike and all the cardiovascular stuff, very gentle. I sort of gradually built up to it. I lost a sufficient amount of weight to be able to run again. I started off on the treadmill for about five minutes, built it up, then I went out for a run, about quarter of a mile, a few hundred yards, and I sort of built up. I started getting fitter and fitter and eventually I was back to – apart from being overweight – I was back to normal again. The first time I was out running again I felt on top of the world – I was actually back to what I used to be like. It took me nearly two years. To get where I am now it's taken about three. I was so out of condition. Three years ago I was walking up Winbridge fields with Rob and I had to keep laying down I was so unfit – incredible. I was so overweight and out of condition I had to lay down a few times! But now I can run up there. Where I had trouble getting up, I can run up it now.

If it wasn't for Sarah and Catherine I don't think I'd have got back into it; well, I *would* have got back into it but not so soon. I think it was important for them to be there first of all – it gave me a bit of confidence. Because I was so unwell I wouldn't have had the confidence on my own – thinking I was going to have a panic attack. Somebody was there I could chat to and take my mind off it. I suppose in a way exercise is a bit of a drug – I want to do it to get that good feeling back again. But I think it's better than drinking; when you drink you're living in a dream world 'cause at the end of the day after you stop drinking you've got to come back to reality. But if you're keeping fit you're not living in a dream world – you're *actually* feeling better, making *yourself* feel better.

You think more when you're running, you can work things out – things that are bad don't seem that bad anyway. I suppose it makes you face the problem head on. It makes you feel as though it's not that bad in the first place, there's nothing really to worry about. Things become brighter, you sort of see things more clear and everything around looks brighter. When I'm actually exercising, no matter what I feel like, I don't feel depressed or anything. I'm ready to tackle the day, you know.

I'm nearly 100% now. It's just the odd attack every now and again but other than that I'm fine. It just proves one thing: if I can do it, and realise that exercise does

help, there's a lot of other people can do it. It's just having the right medication and the right frame of mind and exercising – you can totally get cured of a mental illness I reckon. I think the exercise and the illness has made me value life more. In a way the illness has made me more conscious of life and feel better about life – and how much life means. Having a mental illness wakens you up. You realise that things you worried about in the past, you think "hang on a minute, I'm not worrying about that again 'cause it makes me ill". I either stop worrying about it or I make myself ill again. So I don't worry about it. I'm not letting the stresses and strains worry me anymore.

I'll do a long run tonight at about half-three, when I finish here. Down the A34, sort of run from Winbridge down through Milton, along the B540 and back into Dilsley.

A running bug

Ben is a person with a long and debilitating history of severe mental health problems. From our earliest meetings, Sarah had given me the impression that, of all her clients, Ben was perhaps the individual who had made the most striking progress towards recovery since beginning regular physical activity. A major reason that Ben's progress was so marked is that he had previously been extremely unwell. As such, he began from a considerably disabled position; the improvements he had recently experienced represented a dramatic change in his health and well-being.

According to his medical records, as a youngster Ben enjoyed a good family life with no history of mental health problems or abnormal development issues. The single childhood difficulty that he has since spoken about was a period when he was bullied while at school. When Ben left school, without any qualifications, he embarked on various government training schemes and was subsequently employed in a range of short-term jobs, the last of which was in the care services.

Ben's first involvement in physical activity was playing football at school and, despite receiving little sport input from the teachers at school, Ben felt football was an activity in which he excelled:

> In school I was always a fast runner. I was a real, I'm really skilful at football, a real good footballer. My brother, he taught me all the moves and this enabled me to be from a below average player to a really good player. I was fast anyway (but) to be a really good player you gotta be fast and skilful ... So that's what I did – he taught me the moves and I became a real good, skilful footballer.

Ben, it seems, was passionate about football from his teenage years onwards, "I was always playing football from the age of 16", and he spoke proudly of playing football with his brother in the local men's league, remembering the time when "we lived for football".

It was a few years later that Ben first became interested in running, a transition which he suggests naturally followed from his interest in football: "I think what really got me into exercise was probably the fact that I was a footballer. I sort of used the jogging to help with the football." Ben describes the process of becoming a runner:

> I'd seen the marathons on telly. I thought, 'I'll have a go at them!' I did it with my mate like. We went out running round Dilsley Common. That's when I got the running bug then... In 1988 I did a 6-miler, and from 1990 I done a few half marathons, and from 1992 to 93 I did a few 20-milers.

By this time, Ben was apparently a person who considered physical activity to be an important aspect of his life – his comments about both football and running suggest that exercise was very much part of his day-to-day existence. However, Ben's regular exercise participation ceased completely when, three years later, he became unwell. In terms of physical activity, "I just had no interest in it …for four years I didn't do anything – I went up to 21 stone".

Out of control

Ben was in his late twenties when he was first prescribed anti-psychotic medication[2] by his GP to treat symptoms of paranoia. Although his symptoms quickly improved and the medication was stopped, more debilitating psychological problems began to develop a year later. Once again, Ben experienced symptoms of paranoia. Ben's medication dose was at first increased and then changed to an alternative anti-psychotic[3] but, despite a brief improvement, his "low mood" three months later was raising concern and it was further noted that Ben was not getting on well at work. Ben

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[2] Trifluoperazine – a traditional anti-psychotic medication for schizophrenia and other psychoses. Known side-effects may include dystonia (abnormal face and body movements), Parkinsonian symptoms (e.g. tremor), dyskinesia (fragmented bodily movements), akathisia (restlessness), and tardive dyskinesia (rhythmic involuntary movements of the tongue, face, and jaw), hypotension, fluctuating consciousness, muscular rigidity, cardiac problems, sweating, urinary incontinence, drowsiness, apathy, agitation, excitement, insomnia, convulsions, dizziness, headache, confusion, dry mouth, blurred vision, impotence, weight gain, blood disorders, eye disorders (BNF 44, 2002).

[3] Sulpiride – a traditional anti-psychotic with similar side-effects to trifluoperazine (BNF 44, 2002).

was reverted to his original anti-psychotic medication and an anti-depressant[4] was added. Following another brief respite in symptoms, Ben's mental health began to worsen significantly and within a short space of time he was admitted to hospital.

Looking back, Ben described the way in which he felt that his serious mental health problems began:

> When I first started getting unwell I had a paranoia illness. Psychosis. Thinking people were following me and stuff like that. Cause it was brought on, it was brought on by too much stress and failure. I had a lot of things go wrong with me, lot of, you know, sort of marriage break up and, uh, I failed – I had a lot of failures and stuff so that made me – and I had all that on board – and it sort of spiralled out of control.

This stress and failure he attributed to worries over failing college courses he was taking combined with his feeling that the people he had to work with were treating him badly. A marriage break up further added to the strain until, "it all built up – I just got worse and worse and in the end (clicks fingers) bang! I just had a nervous breakdown." At this time Ben feels that he was "overdoing" and "misinterpreting" many aspects of every day life: "say somebody might be smiling and I'd be thinking they was taking the piss out of me." This excess, he felt, also applied to his running: "I was running from my ex-wife's house to Winbridge and back again, and I think that was stressing me out as well. I was doing a bit too much, too much exercise."

Ben's medical records detail a total of fourteen hospital admissions during a seven year period beginning in his late twenties. Three of these were extended inpatient periods at a mental hospital totalling almost two years, the others were short-term admissions, some to accident and emergency wards. During the first long-term admission, Ben was diagnosed with paranoid psychosis. At this time, Ben reported a low mood over the previous two years during which time his weight had increased by over five stones. For several weeks he was "tearful, agitated, and distressed" which was attributed to an "emerging psychosis with overlays of obsessional thoughts". While in hospital a drug-free period was tried but Ben soon became "agitated and distressed" leading to the resumption of anti-psychotic medication.

By the time Ben was in his early thirties he was documented as having suffered "obsessional thoughts, depression, and paranoid psychosis" with mild symptoms for

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[4] Amitriptyline – a tricyclic anti-depressant often prescribed when sedation is required. Side-effects may include dry mouth, blurred vision, sedation, nausea, constipation, sweating, tremor, and cardiovascular changes (BNF 44, 2002).

about six years that had become more severe in the last two to three years. Although his positive symptoms were reportedly improved through medication, several of the common side-effects of traditional anti-psychotic medication (such as tremor, pacing, blunted affect, and mild tasikinesia) were noted in addition to significant weight gain. In an effort to reduce these side-effects his medication was changed to an atypical anti-psychotic[5]. Within two weeks Ben was re-admitted to hospital with suicidal thoughts and voices in his head.

Around this time Ben also began a course of electro-convulsive therapy for extreme anxiety and desperation. His notes record some improvement after three sessions but are unclear over whether he finished the course. A file entry three months later records Ben to be still experiencing extremely negative and suicidal thoughts and anxiety. Once more, his medication was changed to an alternative anti-psychotic[6] and he spent two weeks in a residential unit where he was noted to be drinking heavily.

It wasn't until six months later, following an increase in medication dose, that Ben began to experience remission of his illness. By this time, Ben was no longer experiencing "abnormal thoughts" nor hearing voices; within a couple of weeks he was discharged from hospital to a residential unit. Nine months later Ben began at Redview Lane still suffering variable mood and anxiety. His medication was reduced but over the next two months his condition worsened to the point that he was suffering "extreme agitation with thoughts of harming self and others". At this time his anxiety attacks were noted to be continual and to last up to eight hours. Ben was diagnosed with "partially treated schizophrenia complicated by obsessional thoughts or obsessive compulsive disorder."

A fear of a fear

Ben's most long-standing acute and debilitating mental health problem has been his anxiety (panic) attacks. As such, Ben's experience of anxiety attacks is central to not

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[5] Risperidone – one of the new generation of atypical anti-psychotic medications that are generally "better tolerated" than traditional anti-psychotics. General side-effects of atypical anti-psychotics include weight gain, dizziness, tachycardia (increased heart rate), and postural hypotension (slouching). Additionally, risperidone can cause insomnia, agitation, anxiety, headache, drowsiness, impaired vision, fatigue, constipation, nausea, vomiting, urinary incontinence, hypertension, and rash (BNF 44, 2002).

[6] Clozapine – another atypical anti-psychotic medication. Additional known side-effects include potentially fatal loss of white blood cells, fever, drowsiness, anxiety, agitation, confusion, fatigue, blurred vision, dry mouth, constipation, nausea, vomiting, problems with swallowing, headache, dizziness, hyper-salivation, urinary incontinence and retention, impaired temperature regulation, hepatitis, jaundice, and cardiac problems (BNF 44, 2002).

only his illness, but also to his exercise participation and the extent of his recovery. The severity of a panic attack is difficult to comprehend unless you have actually been there and experienced an attack. Because of the importance of these experiences to understanding the place of physical activity in Ben's life, I asked him to describe his personal experience of a panic attack:

> Well it's a fear of a fear really. You're just frightened and you don't know why. Everything, everything becomes out of touch. You're just frightened to death for some reason and you don't know why. The fear is so intense, it just gets a grip of you. That's what it's like. And it lasts for, lasts about an hour something like that. Then it's gone again. And then you think, well you know, what was I worried about? Then all of a sudden – you'll be alright for a few days, or a few weeks – and all of a sudden it'll come back again.

Comments made by two mental health professionals at Redview Lane, Sarah and Greg, who have witnessed and tried to cope with Ben's panic attacks provided a powerful validation of the severity of these attacks. Greg confirmed that, even compared to other people with severe and enduring mental health problems, when Ben arrived at the Redview Lane he had been "very, very ill". Specifically, he was experiencing almost daily panic attacks that were totally unpredictable and disconcerting to witness. According to Greg, Ben's attacks were particularly severe; he likened the total loss of control to something you might see in a two-year-old child but extremely upsetting to experience (or witness) in an adult. Sarah also emphasised the severity of Ben's illness commenting that, compared to those times, Ben was now "just a different person" – that it would be difficult for me to appreciate how unwell he had been during the acute phase of his illness having only known him since he had been relatively well. In an effort to better understand Ben's experiences, I turned to his medical records for a more complete account of his progress from the acute phases of illness until the time I first came to know Ben around three years later.

It was approximately one year after starting at Redview Lane that Ben first re-engaged in physical activity which consisted of one-to-one exercise sessions in the gym with Catherine and participation in a small sports group at Redview Lane. Preliminary assessments of his exercise programme were promising: a "much improved mental state" is noted in his records and health care staff judged Ben's exercise and social programme to be effective. Ben's notes also record fitness improvements, weight loss, and that he had also quit smoking and was happy about these changes. Yet two months later his panic attacks had once again increased in frequency – but at this time the

symptoms of his anxiety were not apparently improved by his secondary medication[7]. Clearly, Ben's resumption of physical activity was not to be a smooth or easy process.

Ben's medical records detail some further landmarks in his mental health and physical activity progress. The first important progression occurred around four months after Ben began his gym sessions with Catherine when he began attending a local gym regularly with his father for sessions on the treadmill. Later that year, Ben progressed to attending the gym on his own and also received a trophy from the "weight watchers" group he had joined for his success at losing weight. Two years after starting at the Redview Lane Ben was documented to have experienced psychological, social, and physical improvements and reported feeling generally well although panic attacks still occurred about once a week. At this time his treatment package comprised anti-psychotic[8] and anti-depressant medication, fortnightly psychology sessions with Susan, family therapy sessions, and exercise. Additionally, Ben had a full-time work programme at Redview Lane and was reportedly taking on increasing responsibility in his work role.

Three months later, and five months before my first interview with Ben, Susan noted that the fortnightly psychology sessions which focussed primarily on dealing and coping with his panic attacks "appear to have had an astonishingly dramatic effect". Although the attacks had not become less frequent, Ben was reportedly learning to control them so that they did not interfere with his activities. Susan observed that "the attacks seem to occur only on the treadmill in the gym and at a certain point when he is out running; there seems to be a mixture of physiological arousal and 'paranoid' ideas". Susan concluded that distraction was a helpful strategy and that some "fine tuning" was required for his physical activity. Two months on, Ben was noted in his review to be receiving the same medication, continuing to lose weight (five stones by now), and be working well. His "panic attacks continue generally when running … but he is able to continue running through the attack".

At the time I first met Ben he was continuing with the same medication and psychology programme and apparently "doing well". His panic attacks were much shorter in duration (less than one hour) which he "dealt with independently using

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[7] Paroxetine – a SSRI (selective serotonin re-uptake inhibitor) medication prescribed for depressive illness and obsessive-compulsive disorder. SSRI medications are less sedating than tricyclic anti-depressants. Side-effects include tachycardia, confusion, amnesia, aggression, and psychoses (BNF 44, 2002).

[8] Olanzapine – another atypical anti-psychotic medication with similar general side-effects in addition to risk of drowsiness, speech difficulties, diabetes, and Parkinson's disease (BNF 44, 2002).

psychological coping strategies" primarily when running. Ben was reportedly "moving towards discharge" and in the process of gradually transferring to a new voluntary job in the community.

Back running again

For a period of four years, when his mental health was at its lowest level, Ben reported taking part in no exercise whatsoever. During this time he was also "smoking about, at least, 20 cigarettes a day" and, according to his notes, drinking heavily at times. He was also receiving various anti-psychotic medications which have a side-effect of risk of weight gain (Green et al., 2000). As a likely result of both medication and lifestyle factors, Ben's weight increased to over 21 stones. In terms of physical fitness, he was at an all-time low: "I was so out of condition. I was walking up Winbridge field with Rob, I had to keep lying down I was so unfit. Incredible." Even without a mental health problem, resuming exercise is likely to be extremely difficult for any person in this physical condition. Of key importance then, is the process Ben went through to get back into physical activity.

Ben felt that factors involving his medication were highly relevant to triggering his initial return to physical activity: "I was on the right medication, I felt better and I thought to myself, well, I'll get back into running again and keeping fit again." Important here, it seems, is Ben's referral to the *right* medication. In an attempt to improve his mental health, Ben had been prescribed anti-psychotic medication for the previous eight years. His medical records show a total of five different anti-psychotic drugs and two anti-depressants that were tried during this time in various doses. Although it was not ethically appropriate to dwell on potentially sensitive issues surrounding the more severe periods of his illness during interviews with Ben, it is clear from his records that not all these drugs were effective. In fact, it seems a degree of experimentation was necessary to find the medication type and dose that was both clinically effective as well as acceptable to Ben.

When Ben first began attending the centre a suitable prescription had not yet been found. Although Greg is neither psychiatrically trained nor directly involved in the prescription of medication, he held the opinion that at the time Ben began at Redview Lane his medication was "messing him up". According to Greg, Ben was receiving "horrendous" medication that was, if anything, making his condition worse rather than

helping him. Although Sarah felt that this opinion was rather extreme, Ben's comments offer some support to Greg's interpretation:

> I was on the wrong medication – the medication was making me worse. It made me put on a lot of weight and I couldn't do exercise anyway – I was so overweight. I went up to 21 stone. But, since I've been on the olanzapine I been OK. Olanzapine has helped me.

Irrespective of any possible adverse effects of his initial medication, Ben seemed convinced that it was the *change* in medication that allowed him to begin exercising again and voiced this perspective in all three interviews with comments such as, "when I got the right medication I got back into fitness again." Ben's remarks suggest that a preliminary stage was necessary for him to even consider engaging in physical activity: "I got well enough to start exercising again. Because I wasn't well enough to carry on with the exercise – I became so unwell that I couldn't do it. And then I had no interest in it." Two issues are important here. First, Ben suggests that, as a result of the considerable weight gain resulting from his medication and lifestyle, he was *physically* incapable of exercising. Second, *psychological* factors were also important; specifically, the desire to exercise again: "I had a change in the medication and I was so well that I *wanted* to do exercise anyway."

Becoming sufficiently "well" to contemplate physical activity participation was merely the first hurdle in Ben's return to his current levels of involvement. I asked Ben to describe the process of his re-engagement in regular exercise:

> I started exercising gradually with Catherine. One of the physio's. I'd go to the gym, and I'd go on the bike and all the cardiovascular stuff – very gentle. And, when I got a little bit more weight off I started jogging then – started going on the treadmill for five minutes – sort of built it up from then. I sort of gradually, as my weight came off, started running round Dilsley Common, running further and further. Eventually I was doing 10Ks and stuff. It took me about, nearly two years. To get where I am now it's taken about three.

A slow and gradual process of building up his participation appears to characterise Ben's return to exercise. Ben could remember no particular times or key events during this long, slow return when he felt like he had particularly moved on – there were no sudden improvements or significant events. During the focus group Susan expressed the same view: "I get the impression, the feeling that it was quite gradual, and that it's still happening. I don't remember whether there was a specific race when you felt, kind of, I've done it now." Sarah, with verbal agreement from Ben, suggested that:

> I think when Ben started to do the races, I think that was a move forward. I think it was a very gradual sort of, it was all a very, very gradual process, but when you decided you wanted to do the group run that was a very positive thing for you – when you came in with your medal, and all the things you won. And you wanted to then go on and do the next one so you were very sort of motivated weren't you?

Faced with the difficulties that his situation brought about it is clear that Ben must have had some strong motivations to 'get through' the initial stage of exercise adoption and successfully maintain regular participation. Indeed, Sarah identified psychological factors as even more of a challenge than physical factors among people with severe and enduring mental health problems: "(it is the) initial engagement that is such a difficult thing as they have no confidence or self-esteem".

Although diverse motives probably existed, the desire to get back into running – to return to his previous self-identity as an exerciser – seems to have been particularly important for Ben. As previously discussed, Ben viewed his mental health problems (and the associated treatments such as medication and hospitalisation) as the sole reason he stopped exercising in the first place and spoke about this enforced break in his exercise as if it was almost inevitable that he would resume running once the conditions of his life allowed it. As such, the possibility of a return to his previous well self presented Ben with a goal to begin working towards – a real sense of focus. The concept of a return to his previous self being an important component of Ben's improved well-being was also voiced by Susan: "So I would see it that it (running) is quite linked to recovery 'cause it's maybe getting back a bit of how you used to be before you became unwell." Exercise, it seems, was at last something positive Ben could actually do to improve his own well-being that would get him back a little closer to how he used to be: "Just going to the gym, getting a sweat on … feeling like I used to." As such, his running and gym sessions restored a semblance of, to him at least, normality in his life – he was back doing what he had always done long before his mental health problems began.

Linking closely with this return – perhaps on two levels – is Ben's considerable motivation towards exercise. Adopting and adhering to regular physical activity is problematic at the best of times (Dishman, 1994); for those with mental health problems the problems tend to be only exacerbated (Faulkner & Sparkes, 1999; Faulkner & Biddle, in press). The severity of Ben's mental health problems, coupled with the

physical health and fitness difficulties described previously, suggest that motivation was a critical factor in his success. I asked Ben what he felt was the most important lesson for others in his situation:

> Exercise is just to do with perseverance I think... Take your time and persevere. Start off with brisk walking, gradually a little bit of jogging and stopping. I expect, perhaps, some people might not have the will-power that I've got, know what I mean. Tell them to take it slowly, gradually build up to it.

Ben's choice of the words *perseverance* and *will-power* provide, I think, a modest appraisal of the huge effort he put into resuming physical activity – Ben, it seems, was *committed* to sticking with exercise come what may. Greg described Ben as a person who "had huge will" and that, in his opinion, this was the primary factor in Ben's success. Greg cited Ben's consistent daily attendance at the Redview Lane, "always coming, by bus, and going home again, by bus" as an example of his enduring will-power. Similarly, Susan characterised Ben as: "a great do-er and he's very determined".

A second potential level by which motivation seems important is that Ben has *always* been a strong willed, motivated person and that he is now, once again, returning to this quality of his well self. He described the forceful, self-disciplined manner in which he quit smoking: "I stopped smoking about three years ago. My father kept on at me so much I threw the fags out of the window. I never touched a cigarette again after." As such, Ben's increased involvement in exercise represents a potential return to *dedicated action* – Ben is once again *doing* exercise, as he did before becoming unwell, and he is once again doing it in a forceful and determined fashion. The concept of dedicated action for Ben, a person who has experienced a hugely disabling mental health disorder, likely represents quite a change from the preceding six years of hospitalisation, inactivity, and passivity.

Get that good feeling back again

For Ben to maintain his motivation for exercise through the difficult early stages through to his more recent progress and success it is likely that he must have experienced some rewards, or positive responses, from his exercise experiences that served to encourage continued participation. Stating simply what motivates him to continue his running, Ben listed enjoyment, losing weight, feeling good, a positive way

of thinking, and well-being. These broad, general concepts are intuitive and hardly new news; however, they provide a basic framework to look more closely at the benefits Ben experiences through exercise.

Given Ben's physical condition at the time (significantly overweight and extremely unfit) it might be expected that positive responses to his initial attempts to re-engage in physical activity would be few and far between. However, when asked whether he experienced benefits immediately or only once he started running longer distances, Ben replied:

> I suppose since I've been running longer distances I've been – no, I'd say straight away really. 'Cause you're exercising and you're feeling better, perspiring and sweating and feeling good like.

Ben's initial referral here, subsequently refuted, to the anecdotal view that psychological benefits only occur through running once the individual reaches a high level of performance, is informative. His reappraisal that rewards, for him, occurred from the outset of his running participation links to a focus on the *process* of exercise (exercising, perspiring, feeling good) rather than an *outcome* such as distance or time. This immediate experience of rewards or benefits may well have been critical to Ben's continued engagement as rewards and benefits likely represent powerful motivating forces that kept him coming back for more.

Ben provided some evocative descriptions of the psychological benefits of exercise that seem surprisingly powerful and positive within the context of a severe mental health problem. He talked about a general increase in *brightness* and *clarity* that he experienced through running:

> Things become brighter you know what I mean … things sort of, you see things more clear – and everything around looks brighter. You feel sort of as if you're floating along, sort of gliding. You feel a bit of oneness with yourself and nature I suppose.

This sense of clarity and brighter outlook seemed to help his cognitive function to the point that problems and worries could be resolved, or at the least, faced:

> You think more when you're running. I think. You can work things out. Things that are bad don't seem that bad anyway … I suppose it makes you face the problem head on. It makes you feel as though it's not that bad in the first place – there's nothing really to worry about…

Once again, Ben refers to the actual *doing* involved in exercise as important: "Because you're getting fit and exercising, what you're doing there are things that are positive and

its making you think positive and feel positive as well." In Ben's experience, *action* (doing something positive) seems to be closely linked to positive *thoughts* and *feelings*.

In the months immediately preceding our interviews Ben's physical condition had continued to improve with him further reducing his body weight. Although Ben felt he was still overweight by "about four stones", his body weight had changed:

> ... dramatically, yeah, from over 21 stone to 17 stone now. Exercise it's mainly down to, and diet I suppose (and) probably the medication I'm on. But if I didn't exercise perhaps I'd be as big as I was before.

Weight loss, it seems, is an important benefit of physical activity for Ben and something he uses as an incentive to continue running. Discussing his use of targets and goals for his runs, Ben said:

> At the moment I'm just doing it – I'm not really timing myself or anything. I'm just doing it to get my weight off. I'm just hoping that it'll help, contribute to some weight loss at the moment. But I suppose when I get my weight off I'll time myself down and try and do it quicker.

The combination of Ben's attendance at a weight watchers group and his comments above indicate that tackling his weight problem is an understandable priority for him in its own right – he simply wanted to get back to his previous, slender self.

Returning to a healthier body weight also has implications for Ben's running participation and, hence, the psychological benefits he is able to enjoy through running. Excessive weight clearly limits what is possible for Ben to achieve as a runner; at over 21 stones, it is unlikely Ben would have been capable of running half marathons without a serious risk of injury. In other words, he would have been unable to even *take part* in an organised race. Having lost five stones, however, Ben has been increasingly able to take on these longer runs. Ben suggests that this increased level of participation and achievement brought with it a new level of psychological experience:

> Well you get to a stage with running where you get so fit that its not actually like you're running it's like you're gliding ...You're so fit. Like a piercing diamond arrow being fired through life's fierce clear water.

This level of physical fitness and psychological or emotional sensation contrasts with Ben's more functional descriptions of the early benefits and suggests that, in practical terms, Ben has formed an identity of a long distance runner. A sensation of *gliding* is, I think, something that only a regular runner might hope to achieve in the form of a

runner's high. I was interested to pursue the "piercing diamond" sentence as it seemed an unusual phrase in the context of our conversation. Ben told me that it was quoted from an A-grade essay he wrote on long-distance running during a college course but although he offered to lend me a copy of the essay, he told me the next time I saw him that he had been unable to find it.[9]

I began to appreciate perhaps the real importance of exercise to Ben when he told me that he experiences mental benefits from exercise nearly every time he runs – he estimated the benefits to occur about 90% of the time. According to Ben, "when I'm actually exercising no matter what I feel like I don't feel depressed or anything – I *always* feel good, no matter, when I'm exercising". In terms of how long these good feelings last, he replied, "All the time. They make me feel good and up for it for the rest of the day." Underlining the importance of running to Ben is his admission that he doesn't experience these kinds of benefits from any other activity. It seems that the combination of nearly always experiencing positive psychological effects and wanting to "get that good feeling back again" yet being unable to achieve that positive mental state through other means is a powerful incentive that ensures Ben continues to exercise on a regular basis. At the same time, this scenario of a very strong exercise focus, coupled with Ben's references to exercise being "a bit of a drug" is close to what some psychologists might consider an addiction.

The question of whether Ben over-exercises – is *addicted* to physical activity – has arisen on several occasions. In the period immediately before he became unwell, Ben felt that he was over-doing the running: "I was doing a bit too much, too much exercise". This tendency, he felt, generalised across other areas of his life: "I was overdoing it – at everything I was overdoing it." Exercise addiction is not implicated in the onset of Ben's initial illness at any point in his medical records and it is not entirely clear whether Ben's ideas are an independent retrospective analysis or whether this point of view had been subsequently suggested to him during psychological therapy. However, at several times during our interviews Ben compared exercise to drugs, "I suppose in a way it's a bit of a drug, like – want to do it to get that good feeling back" and even hinted at experiencing withdrawal symptoms when he doesn't exercise:

> *Sarah:* If you're not able to get out running or go to the gym does it bother you?

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[9] I was unsure whether Ben had really not been able to find the essay or whether he decided that he had revealed enough of his life already and preferred to keep the essay private. This issue is discussed further in chapter six.

> *Ben:* Well, (for) about two days I'm OK but after a few days it does bother me a bit. I get a bit sluggish – I don't feel exhilarated, which I feel like if I was running. Feel I'm not up for it, you know…

Speculatively, it might be that Ben has a general tendency towards addiction – that he is a person who needs to do *something* in a 100% fashion. Ben is recorded as having been both a smoker and drinker (sometimes to excess) and described his drinking as "a way of escaping". Nowadays he neither smokes nor drinks:

> I found smoking was making me worse. It was stimulating my brain and I was getting all – and I didn't really need to have my brain racing with all questions … I was smoking about at least 20 cigarettes a day as well when I was unwell. But I don't smoke now – I packed it up – 'cause I didn't feel I needed it anymore. I was using it as a crutch, know what I mean…

Ben even compared the effects of physical activity with those of alcohol:

> I went through a period when I was drinking and that but I just regret it now. The benefits that you can get out of exercise are much better, a much better drug… I think drinking, you're living in a dream world. That's what I reckon. You're dependent on it…. 'Cause at the end of the day after you stop drinking you've gotta come back to reality – can't drink all your life. But if you're keeping fit, its free, you don't have to pay for it you can just do it cause you like doing it. You're not living in a dream world, you're *actually* feeling better…

A critical difference here is Ben's distinction between experiencing *illusory* and *temporary* well-being through alcohol compared with achieving *actual* well-being through exercise. Ben explained and rationalised his potential over-involvement in running:

> I do overdo it still sometimes, I like it so much. I do overdo it I think. Well, I suppose it won't hurt me though. I shouldn't imagine that it'd hurt me. My heart's OK, touchwood, I haven't had any problems with my heart or anything. I feel OK.

If his exercise participation qualifies as an addiction, Ben sees it as, at worst, a harmless addiction; as something that he throws himself into whole-heartedly which brings the 'highs' of other forms of stimulation without the damaging health effects. In this sense, if Ben's participation can be considered (at worst) as a positive addiction (Szabo, 2000). For Ben nowadays, physical activity is the way he achieves his highs: "other people might get a kick out of other things but for me its exercise."

Can't beat it

Over recent months, Sarah and Susan have had conversations concerning whether Ben's running is actually *causing* him to experience psychological problems. This concern was real and documented in his notes in the observation voiced by Susan that:

> The (anxiety) attacks seem to occur only on the treadmill in the gym and at a certain point when he is out running; there seems to be a mixture of physiological arousal and 'paranoid' ideas.

The realisation that Ben's panic attacks had begun to occur primarily during exercise created a tension that should be investigated further. Although Ben did not raise this issue during the first interview (suggesting, perhaps, that it is something he is sensitive about) we spoke about his experience of panic attacks during exercise in the second interview after it had been brought to my attention by his notes. Ben confirmed:

> I had it (a panic attack) in that half marathon. Not only was I thinking of keeping going, I had to deal with a panic attack as well – on the run. So I went 13 miles and I was in the panic attack all the way round. I got out of it as I, as I finished and had a shower and as I was in the shower it just disappeared. I was alright.

Ben's comments suggest that it is more the races than the exercise itself that tended to lead to an attack. When I asked Ben if he could tell me about how he was feeling before his most recent race he said: "I was getting – actually, I got ill at the beginning 'cause what happens is I get so tensed up about the race, nervous, that I actually bring one on, an attack on. I can sometimes bring it on."

My initial reaction to these comments was that perhaps running, and in particular competitive race situations, was no longer benefiting Ben's mental health at all – that they were doing more harm than good. However, the more I discussed this issue with Ben and his mental health workers, the more it began to seem that running was in fact an effective way that Ben could *manage* and *cope with* his panic attacks. Previously Ben's panic attacks occurred randomly and were totally debilitating for hours on end forcing him to abandon whatever activity he was then engaged. More recently, Susan, Sarah, and Greg agreed, the attacks had been of a much shorter duration and, crucially, he was now able to continue with his activities during an attack. In short, it seemed that Ben was able to literally *run through* a panic attack. Ben outlined his strategy for combating an attack:

> Well sometimes if I can divert my thought I'll be OK. All I gotta do is divert my thought. But it's hard to do. You gotta try and take your

> mind off it for a few seconds and then (clicks fingers) it's gone. But its just chatting to other runners – sometimes it'll go, like, chatting to them, other times it'll stay … I gotta try and concentrate on focusing on not having the attack – just getting round all the race … I can get through it sometimes. Other times I need to lay down. I can't beat it.

These comments, and others remarks Ben made during the interviews, suggest that a panic attack may be diverted in two ways. First, a simple unconscious distraction may be sufficient to divert the attack. For example, chatting to other runners, finishing the race or taking a shower. At other times it appears that Ben takes a more pro-active approach to consciously coping with the attack – something more than simple distraction. The phrases "divert my thought", "concentrate", "focusing on", and "getting round" hint at a more *forceful* or *effortful* process where Ben is very much an active initiator rather than a passive responder. This view was also noted by my research colleague (KD) who felt that running was a way for Ben to "beat his inner devils"; that through taking the positive step to run through his attacks he was in some way able to confront, and sometimes over-power, his mental illness. Susan's comments supported this view and the importance of Ben's choice to keep going with his running despite these difficulties:

> Ben has kept going with the exercise despite the fact that that's the one place where (he) still got the panic attacks. He's pretty determined! And that's how he's getting well. He's a great do-er and he's very determined … I mean it's pretty brave knowing that you might have a panic attack when you're out on a run. I think that's fantastic. And of course Ben's getting the beneficial effect of being that brave now: he's still making a recovery.

Perhaps it is the case that running, instead of providing a way for Ben to *beat* his illness, allows him to channel his problems and hence establish some control over his symptoms.

Making yourself feel better

The power and value of Ben taking the decision to continue running is also supported by Sarah who sees the critical factor in the value of exercise for Ben as being the fact that he *did it himself*. Individuals who have been treated for mental health problems for an extended period of time receive a lot of input from others – the mental health professionals who take responsibility for their care. There is a risk that the individual becomes dependent on others instead of taking initiative or action for their

own well-being. Sarah felt that, finally, exercise represented something that Ben could actually do for himself in an attempt to recover from his mental health problems and return to well-being. As such, exercise, and running in particular, represented a practical, controllable activity that was available to Ben as an approach to confronting his mental illness.

These remarks suggest that the opportunity of assuming personal control – acting autonomously – has been an important factor in Ben's improved health and well-being. Comments made by Greg, my research colleague, and Ben himself offer further support for this view. It is likely that issues concerning the assumption of personal control and autonomous action apply to Ben on more than one level.

At the most basic level, physical activity offers a potential for autonomous action through the planning and organisation of one's exercise programme. From my observations of Ben's behaviour during exercise sessions and the remarks he made during the interviews it became increasingly clear that Ben had reached the stage where he organised and planned his exercise activities himself. Referring to his gym sessions he seemed to follow entirely his own schedule:

> Recently I haven't been doing as much. I've just been doing about 50 minutes on the treadmill and then getting in the sauna and having a steam in the sauna – not really doing the rest of the exercise – depending on what I feel like. I might do a few other exercises depending on what I feel like.

While at first glance a simple task, the opportunity to adjust his exercise routine in response to how he feels on a given day is important here: it provides a real opportunity to exercise personal control. Moreover, because Ben is a *regular* exerciser, this opportunity is repeatable and predictable: he knows that, every time he exercises, he will once more be in a position of making and taking his own decisions. In the context of the unpredictable (seemingly random) occurrence of Ben's anxiety attacks, this small island of reliable, consistent personal control is potentially significant.

During the interviews I also learned that (with the exception of the football group) Ben exercises alone. He felt that although this distinction did not affect the benefits he experiences through exercise, it did have implications for the *organisation* of his exercise which was something that, "I'd rather do myself. No particular reason." Exercising alone clearly allows maximum freedom in terms of organisation and planning of physical activity sessions. The responsibility that Ben took for planning and organising his exercise was acknowledged by both Sarah and Susan when they admitted

during the focus group that they weren't always aware what exercise Ben was currently involved in.

According to Greg, Ben's long-term organisation of his own exercise programme had also acted at a deeper level, representing an important aspect of his moves towards full recovery. Greg felt that the personal control Ben exercised over his exercise participation gave him a connection with the world outside mental health services – a link to normal life and a sense of constancy. Greg elaborated that, in his opinion, running was "a yardstick for him to push through his panic attacks" and that running acted as a *stable* aspect in Ben's life – a constant over which he had control.

The importance of taking some personal control of his treatment and well-being was raised by Susan in terms of Ben's role in his own progress:

> I mean as I say again Ben, the last time I saw you, I'm just so delighted that, as Sarah was saying, you got a little bit of help to start off the exercise but ... you've learnt to do that on your own which is fantastic – 'cause that protects a person in the future. That's why I've said no to the luck bit, because I think you've actually managed to do that yourself ... If you have certain thoughts in the future then you can say, well, it won't happen. You don't need somebody outside yourself so much to say it then – you can do it for yourself.

Similarly, the issue of personal control was highlighted by my research colleague who felt that Ben's control extended over several aspects of his life including the nature of his exercise participation, the panic attacks themselves, and perhaps reached across his life as a whole. She highlighted Ben's contrasting view of drinking as a dependency on something outside of the self, compared to exercise as an opportunity to do something himself, for himself:

> I think drinking, you're living in a dream world. You're dependent on it ... But if you're keeping fit, its free, you don't have to pay for it, you can just do it cause you like doing it. You're not living in a dream world, you're actually feeling better – *making yourself* feel better.

Ben's comments on his exercise participation before becoming unwell throw some further light on the place of personal control in his life. Despite feeling that he was a talented footballer at school, Ben was of the opinion that he was responsible for this rather than his teachers: "I didn't get any help from the teachers at school. They weren't very good and I was a real good player." Likewise, Ben's account of how he initially began running after watching the London marathon suggests that his actions were of his own volition: "I thought, I'll have a go at them!" More recently, Ben has appeared to be

the kind of person who takes control – assumes responsibility for himself – whenever possible. This quality is also noticeable in certain areas of life outside exercise participation, such as dieting, where he told me that in order to lose more weight, "*I'm* gonna have to be really strict with *myself*."

In terms of personal control and autonomy, the concept of *a return* seems once more to apply to Ben. His comments about physical activity before he became unwell suggest that, retrospectively at least, he was an individual who made and acted upon his own decisions. While he was acutely unwell the opportunity for acting autonomously disappeared; the disablement inherent in his condition forced him to become, predominantly, a responder or receiver of treatment. However, his recent progress towards recovery has been marked by an increase in personal decision making opportunities and independent, autonomous action.

Ben's major achievement, given the severity of his mental illness, is making a *return* to his well self; this theme of returning emerged repeatedly during all the interviews. Recounting the story of his exercise progress since being unwell, Ben said, "I started getting fitter and fitter and eventually I was back to – apart from being overweight – I was back to normal again… Back to what I used to be like", and "the first time I was out running again I felt on top of the world like – I was actually back to what I used to be like doing running again". Susan agreed:

> I would see it that it (running) is quite linked to recovery 'cause its maybe getting back a bit of how you used to be before you became unwell… And so it really is quite significant in that sense. A normal thing to do and also a thing that brings one achievement – I'd see it that way too.

We actually got there

Although recovery from his mental health problems is, perhaps, the most important achievement for Ben, it is not the only one. Indeed, the considerable scale of Ben's recent progress would have been almost inconceivable during the acute phases of Ben's illness. It is likely that, in order to provide the encouragement to motivate continued effort, a series of more modest achievements have been necessary along the way towards recovery. Physical activity, it seems, has been the primary medium through which Ben has experienced an intermediary sense of achievement.

Throughout my contact with Ben he gave me a strong impression that he was proud of the things he'd achieved through exercise; that these achievements were indeed

factors that encouraged him to continue running and exercising. The magnitude and proliferation of Ben's physical activity achievements contrast sharply with his descriptions of other areas of his life (such as relationships, education, and employment) where he felt he had "failed". Additionally, not only were his achievements through exercise things he valued himself, but they were also apparently valued (and approved of) by his mental health professionals and people outside the service such as myself. Remarks made by mental health professionals always expressed support for Ben's achievements with exercise, both his own running programme and his participation in races – this appreciation was a likely further incentive to Ben.

Talking with Ben about his exercise participation before he became unwell, several areas of achievement emerged. The first was a sense of *conquering* challenges:

> I started off (running) with a friend and we sort of gradually built up, sort of went through the pain barrier together. Ran to Dilsley Common and both shook hands afterwards – it was a real good feat to actually do it like – thought bloody wow like... Because we'd done it, we'd actually conquered it, we actually got there.

Ben's current approach to exercise appears consistent with this perspective of conquering distance or time: "I use the treadmill ... trying to conquer an hour on the treadmill at the moment. I got to 50 minutes. I really pushed it and got another 10 minutes to go so I'm gonna gradually build up to it." Each of his exercise sessions are characterised by some personal aim or goal, "like when I go out for a run, I set a target where I'm gonna run for two hours", and successfully reaching his exercise goals are, it seems, important to Ben: "I like to feel that buzz when you know you've achieved something." Ben's comments about successfully completing two of his recent 10 kilometre races also suggest that he gains a high degree of satisfaction from setting, and achieving, goals or landmarks:

> That was good – gave me something to aim for. I stopped last time, I stopped in the Milwood as well, but this year I never stopped at all. I got all the way round on the Milwood and the Buxford. So that's an achievement isn't it?

In his races it seems that a key aspect of achievement is *getting round* – completing the distance: "(if) you keep going all the way you can say, well, I ran 13 miles – I never stopped". As such, Ben's emphasis seems to be focussed on personal mastery rather than external standards of performance where each achievement is measured against his own previous performance rather than being compared against others' standards. This

distinguishing feature has meant that, even when significantly overweight and unfit, Ben was still able to experience a self-referenced sense of mastery and achievement through his gradual improvement.

They got me into the swing of it

Although Ben assumes a good deal of the responsibility for his successes – both in terms of exercise and recovery – his comments indicate a feeling that progress would have been much more difficult, if not impossible, without assistance of others. Ben identified two specific forms of social support which had helped him along the way. The first of these was particularly important at the time he initially resumed physical activity. As previously discussed, once Ben's medication problems were resolved – he had moved away from the most debilitating effects to become well enough to exercise – the support and encouragement from the physiotherapists facilitated his subsequent improvement. According to Ben it was Catherine and Sarah that made the initial suggestion that he begin to exercise again and their presence was identified as being particularly important during Ben's first tentative visits to the gym:

> I think it was important for them to be there first of all. It gave me a bit of confidence. Because I was so unwell I wouldn't have had no confidence – thinking I was gonna have a panic attack, stuff like that. … And somebody there I could chat to and take my mind off it (the illness).

From this comment and my discussions with Sarah, it seems that the physiotherapists offered help at four levels: (i) making the initial suggestion to start exercise; (ii) organising and planning exercise sessions; (iii) helping to build Ben's confidence; and (iv) helping to focus (or distract) his attention away from the illness. The importance of this assistance was seen by Ben as *facilitating* his exercise participation – enabling his return to running to happen more quickly. Talking about the help he received from Sarah and Catherine, Ben gave the impression that his return to running would have happened eventually anyway:

> Well, I'm deeply thankful for them, for helping me, getting me back into exercise again. If it wasn't for them I might not have got back into it so soon. I expect I would have got back into it eventually, but they got me into the swing of it again.

As is perhaps typical of Ben, he retains some degree of personal control for his return to exercise participation in suggesting that he was not *dependent* on their assistance.

However, the phrase "deeply thankful" conveys a strong feeling for the importance this initial support held in setting Ben on the path to regular, self-directed physical activity.

In more of a long-term and broad-based fashion, family support has helped Ben through the onset of illness, several years of acute psychotic symptoms, and, more recently, the challenges of returning to regular physical activity. When I asked Ben whether help from his family had been important, he replied:

> Oh yeah. Love. Love helps a lot, know what I mean. If you've got a lot of love – I feel sorry for the people that haven't got anybody ... that in itself must be real, worse than the illness itself. That's what I reckon anyway. That must be terrible if their parents don't want nothing to do with them and they throw them out and they can't cope with it, it must be terrible.

For Ben, family support seems to have been present ever since he initially became unwell. At the time of his hospitalisation Ben feels he received a lot of attention and help from his family:

> My parents visited me every single day since I was there (in hospital) – give me a lot of support in that way. My brother made me look at things in a clearer light .... said things to me that made me think more clear.

This support has continued as Ben has moved towards wellness, returned to regular running, and taken part in more races. Ben mentioned the presence of his parents at his last half marathon: "My dad was there. My parents go with me too on all these runs – they go with me and sort of cheer me on at the end." Greg felt that family support had been an important factor in Ben's successes, acknowledging the strength of his family and their continuing support. Greg saw Ben's parents as a family presence that took an interest in his life and made a great effort to help. The only drawback of this support, according to Greg, was that his parents sometimes became *too* involved in Ben's life – arguably becoming over-protective in an effort to ensure his well-being.

Social relations were one aspect of Ben's recovery that Susan expressed mild concern by noting that, despite his progress, Ben still continued to exercise alone. Ben's comments suggest that the process of experiencing a serious and enduring mental illness necessitated, in a practical sense, independent exercise: "I used to exercise years ago with a chap but since I was unwell I've lost touch with friends. But I still exercise on my own." Although Ben first started running with a friend this situation has changed, largely through circumstances beyond his control: Ben is obliged to exercise alone simply because he no longer has anyone to exercise with. Alleviating Susan's concern

somewhat was Ben's recent regular participation a weekly five-a-side football group. Ben has prospered in this supportive group environment and own observations of Ben during these football group sessions suggest that he has sufficient social skills to manage group activity happily. Ben's recent change to successfully exercising in a group setting suggests that, instead of a firm personal preference, the difficulties and circumstances associated with his mental health problems were the biggest factor in Ben exercising alone.

Nearly one-hundred percent

Ben has been battling mental health problems for nearly a decade. Throughout this time, his illness has had a profound impact on all areas of his life. At the most severe times he has been unable to function and needed hospital care – at other times he has been able to get on with a relatively normal life within the context of a supportive environment. The term *severe and enduring* seems to be an accurate label for Ben's mental health problems.

Despite these difficulties, it is clear that Ben has made massive improvements in both his mental health and general well-being over the past three years. Ben spoke of his current level of wellness, saying: "(I am) nearly one-hundred percent. Just the odd attack every now and again but other than that I'm fine." Throughout the interviews and my time with Ben he gave the impression that his mental health problems were behind him – that he was ready to move on in life. Sarah, Susan, and Greg all spoke independently of Ben's success in recovering from his severe mental health problems and the huge scale of the improvements he had made in recent years. In the context of a severe and enduring mental illness such as schizophrenia, Ben is very much a "success story" from which, I feel, much can be learnt. In the pursuit of this learning it is important to consider what factors, in his experience, were important landmarks on his road to recovery.

This report has already discussed a number of significant factors in Ben's progress, with a particular interest in the effects of his exercise participation. These factors are all important. In an effort to clarify Ben's experiences – to identify the factors he thought were most important himself – I asked him what he felt was critical to his on-going recovery:

> It's just having the right medication and the right frame of mind and exercising – you can totally get cured of a mental illness I reckon …

> I think the medication's got a bit to do with it but its just positive thinking and the exercising making you feel better – feeling more positive about yourself.

In Ben's eyes, three factors were central to his recovery: (i) medication, (ii) positive mentality, (iii) exercise.

During our first interview I asked Ben to score the relative importance of medication and exercise in his recovery. Ben responded "I think that exercise is more than medication" giving a score of six to the exercise and four for medication. It is possible that this attachment of value was influenced by the context – the fact that I was a physical activity specialist interviewing him about physical activity. It may be that a degree of socially desirable responding coloured these statements – Ben might have provided the opposite response to a psychiatrist! Yet, throughout all my contact with Ben I felt that his words and behaviours supported the hugely important role that exercise had played in his recovery. During the focus group it was revealing that Susan listed the aspects of Ben's care programme (vocational and voluntary work, work on psychological coping strategies, healthy eating, family sessions, and medication) yet it was Ben who added to the list "exercise". My research colleague was convinced that, after reading the transcripts and notes, exercise was an absolutely critical factor in Ben's recovery.

It is difficult to gain a complete understanding of Ben's references to "positive thinking" and "the right frame of mind", the meanings of which are broad and general but also somewhat illusive. The key word in context analysis strategy (see appendix 6 Tables 6.1c and 6.1d) seems to capture, at a simple level, Ben's change towards a more positive and optimistic tone as he moved from the acute stages of illness towards recovery. In an effort to further "decode" Ben's meanings, I refer to a paragraph I wrote in my field notes following an informal interview with Greg:

> In particular, and Greg felt most important of all, Ben had huge 'will' and this is what has made the difference in his illness. He felt that Ben's attitude is that he 'won't become a victim'. Greg said that only very few 'come through' this kind of mental illness, that a 'cure' is not something that is really considered. Yet if Ben has one thing to be able to 'get better' it is his incredibly strong will-power and a 'fundamental desire to live'. This may be the route to a 'cure' in Greg's eyes. (30 July, 2001)

This 'will' or determination has already been discussed and is fully supported by Susan as a critical factor in Ben's improved health and well-being. These mental

strengths can perhaps be considered part of the positive mentality Ben feels helped him get through his mental illness.

One of the most striking aspects of my conversations with Ben was the way that his experiences have changed him – and his awareness of these changes. My research colleague identified that Ben appeared to view life as *fierce* – that every day was something that must be *tackled*. With the benefit of a fuller understanding of Ben's experiences, it is easy to see how he might have come to view life in this way. Yet, despite these hardships and difficulties, Ben referred to a powerful valuing of life since he was unwell. While talking about his lifestyle of smoking and drinking when he was unwell, Ben said, "I think the exercise and the illness has made me value life more and I won't touch another drink again, I'll never ever get drunk again … or smoke. Fitness for me now is a way of life."

Ben spoke of the increased value that he attached to both physical and psychological well-being. In terms of physical health, this was most clearly voiced in his desire to continue to be able to run into old age:

> It's best to be able to exercise when you're young – and keep in with it – to enable you to run when you're in your 50s and 60s. If you keep it up you can even run in your 70s … that's what I want to do when I'm that age – I want to be able to run at that age … so you're exercising basically cause when you're alive you're on a time schedule.

Although anybody who exercises may take the perspective that physical activity is important for their health across their whole lifetime, the situation seems more extreme and urgent for Ben given his reliance on running as his primary strategy for coping with debilitating anxiety attacks. The prospect of no longer being able to run is frightening for any keen runner yet, for a person who relies on running to manage an acute mental health problem, the threat of being unable to run takes on much increased resonance.

Ben spoke about some profound psychological changes that he has been through as a result of his experiences that perhaps hold the key to his progress towards well-being:

> Having a mental illness wakens you up. You realise then that things you worried about in the past, you think hang on a minute, I'm not worrying about that again 'cause it makes me ill. So I either stop worrying about it or … I make myself ill again. So you don't worry about it.

It is perhaps these internal psychological changes – learnt changes that have come about through the difficulties and challenges that Ben has faced as a result of his mental health problems – that best explain Ben's progress and signpost the way towards a healthy future. It is a future for which Ben holds positive expectations: to be well, to complete a London marathon, and to return to a healthier body weight. Ben offered his observation of modern life:

> … people around getting stressed out and all that and they're just letting their life slip by 'cause they're just worrying – and the years are going by … and all you gotta do is sort of mellow out and just think, well, just enjoy life isn't it?

These comments hint at a realisation that, for Ben, psychological well-being and mental health is achieved in part through active internal processes rather than passive responses to one's external situation.

Conclusions

In terms of Ben's experiences it is difficult – perhaps futile – to attempt to identify any single factor that has proved most important on the road towards recovery. Susan endorsed this view by stating the opinion that Ben was "still moving forward and exercise is part of the pattern – it's hard to separate out the specific effects." In terms of the early stages of Ben's physical activity participation, it appears that several important factors co-occurred to enable Ben to resume exercise. First, Ben finally arrived at the 'right' medication prescription. This allowed Ben to become both mentally and physically well enough to consider resuming physical activity. Although little research has as yet investigated the use of exercise during the most severe phase of mental illness (i.e. acute psychotic episodes), it is generally acknowledged that the greatest potential may lie in tackling the chronic and debilitating negative symptoms of schizophrenia (see Faulkner & Biddle, 1999). This seems to be the case for Ben: during the most severe phases of his illness he was simply *too unwell* to even consider physical activity. Second, Ben's strong personal motivation, will-power, determination, and positive thinking were a primary factor which drove him through the difficult stages of exercise adoption and initial adherence (e.g. Dishman, 1994). Third, two forms of social support were important. Professional support and encouragement from his physiotherapists and other mental health professionals was critical when Ben began exercising while acceptance and unconditional love from his family provided an element of stability and

support for his physical activity participation (e.g. Courneya, Plotnikoff, Hotz, & Birkett, 2001; Fox, 1997).

Exercise – running in particular – holds central importance in Ben's life; he would probably both behave, and identify himself, as 'an exerciser' whether or not he had experienced a serious mental illness. In the context of his experiences, from the interviews I carried out with Ben, and the discussions I had with his mental health professionals, it seems that exercise offered benefits to Ben on a number of levels. First, it provided instantaneous *in the moment* benefits, such as clarity of thinking and a sense of perspective, which occurred through the process of running (e.g. Biddle, 2000). Second, it provided an avenue for Ben to experience positive feelings from having *done* something which he felt was worthwhile as well as the feelings of achievement which resulted from his physical activity participation. These positive feelings may have been particularly important for Ben in the context of mental health services where the focus tends to be on symptoms and deficits rather than abilities and achievements (Chadwick, 1997a; Repper & Perkins, 2003). Third, resuming regular exercise provided a way of returning to his previous self where he identified himself as a 'runner' and 'footballer'. It is clear that Ben has always valued his exercise and sport participation; returning to an exercise-identity is likely to have been a positive and encouraging change in its own right (see Sherrill, 1997). Fourth, physical activity provided an effective means (alongside dietary intervention) of tackling his weight problem which likely arose as a combined result of lifestyle factors and side-effects of antipsychotic medication (Faulkner, Soundy, & Lloyd, 2003).

Finally, and perhaps critically, the benefits of taking personal control over aspects of his life and having an opportunity to act autonomously contributed to Ben's improved mental health. It is well accepted that people who suffer from severe and enduring mental health problems commonly experience a loss of autonomy and control over their lives (Chadwick, 1997a; Childs & Griffiths, 2003; Repper & Perkins, 2003). Likewise, there is strong evidence to support the importance of autonomy and personal control to psychological well-being and mental health (Jolly, Dyck, Kramer, & Wherry, 1996; Kasser & Ryan, 1999; Nix et al., 1999; Reis et al., 2000; Ryan & Deci, 2000; Sheldon, Ryan, & Reis, 1996). Ben regularly raised the issue of autonomy during the interviews – both explicitly by discussing the choices he makes through exercise participation and implicitly in the *way* in which he talked about "ownership" of his

exercise experiences. In this light, it may be that autonomy is a central component of Ben's improved mental health to date and a key to his long term recovery.

5.2 STARTING AFRESH

I suppose I took a twenty-five year holiday from exercise! I wasn't into exercise during that period – when I was unwell – just wasn't. But I've always enjoyed football. When I was a kid, I used to play for Fleetway Falcons on the beach. On the beach! I did football at school too. We had a choice of rugby or football – I chose football. I used to play defence and I used to play pretty well I thought. So nowadays I'm better at football than anything else 'cause I used to play a lot when I was a kid.

It all started because I had a chat with Sarah – the physio – a few months back when I was in woodwork and she suggested that I take up a bit of exercise to get a bit fitter. She said I wasn't very fit. So, that's what I decided to do. I decided to take up a bit of exercise – to start afresh. I started on the exercise bike and, well, just progressed – one thing led to another – progressed to football, badminton and the walking group. I started off at about two or three minutes 'cause at first I just felt a bit lethargic – a bit slowed up. But Sarah said you'll improve as you go along, and it was true. I stepped up to about five minutes, gradually getting better and now on the exercise bike I do ten minutes – I know that I can comfortably do that. Say twenty minutes on the bike, I wouldn't do that 'cause that's beyond my limits, but I'm OK with ten minutes. I don't want to start overdoing it – I just do what I feel comfortable with.

I always used to be a bit slowed up, just not really concentrating on what I was doing. But the exercise improved that. It's helped me to concentrate on what I'm doing at a specific time like talking to someone and listening to them as well – listening to what they are actually saying. I feel a bit more with it and a bit more alert than I was. And I'm a bit fitter than I used to be. Like doing the wood work – I used to have trouble sawing through thick wood but now I can do it quite, well, not easily but I can do it easier now than I did before. I feel stronger in myself – it's got me a bit fitter. Whenever I exercise I feel a bit more refreshed and that usually lasts until I do some more exercise.

The next thing I started was badminton. I didn't know what to expect but I had a go at it, gave it a try. Simon told me I used to be "static" – kind of rooted to the spot – so if the shuttle came through I'd only hit it if it was close. Maybe take a few steps to it but nothing major! But yesterday when he told me that my badminton had really improved – well, I'd noticed that myself – that I was moving about the court a bit more and reaching for shots, I was well chuffed! The same happened with football. When I first started I was a bit conscious that I was making mistakes and didn't score or

anything like that. But then I started being the top scorer – just stood down the other end and kept hammering them in! One week I got fourteen goals – that's a lot ain't it? Once I got into play and started scoring a few goals I got a bit more of a smile on my face. I get satisfaction from playing football – if I score a goal I'm pleased with myself and it gives satisfaction that way. But I get satisfaction from it even if I don't score a goal – some weeks when I haven't scored I get pleasure from playing good defensively or passing or helping out my fellow players. I used to be a bit selfish and just go for goal all the time but I've realised there's more to football than just scoring goals.

I feel happy when I'm exercising and afterwards I have a sense of satisfaction that I actually played because I was doing something with my time. That's important I think; to actually be able to use your time properly. With sport I know that I haven't wasted my time, that I've used my time constructively, doing something that'll do me good. And, at the moment, I've got the time to exercise so I use it. Every morning when I get up I know I've got exercise on my daily agenda, so I just wait until it comes round. I don't dwell on it. Once I've done it I just move on to something else – the next thing on the agenda. Busy – I like it like that. I suppose I like the social side to it too 'cause you're meeting other people that are sharing a common thing aren't you? Common exercises, sharing that experience, all doing the same thing, so we've all got something to talk about. Sometimes we get a couple of new people along and I get to know them and sometimes, you know, they finish the football – just don't turn up anymore. That's just the way of things.

But I think the biggest thing is enthusiasm – I've still got the enthusiasm for it – and you've got to have the will-power to do the exercise, to actually carry through with it. You've got to want to do it, that's important. I always loved my sport in the past but now I'm starting afresh. I'd like to continue the exercise 'cause it's doing me some good and hopefully the future will be rosy. I've been through some bad times so hopefully things will be better for me. So no, exercise hasn't made me into a different person. I'm still Mark. But I feel a bit more energised, a bit more with it than I did before I started.

A feeling of fuzziness

In his early forties and with a twenty year history of mental health problems, Mark had only been attending Redview Lane for eight months at the time of our interview. In this regard he was an unusual choice of participant as, although he'd begun

exercising within one month of his arrival at the centre, he was still relatively new to both Redview Lane and physical activity. However, during this short time period Mark had successfully integrated a range of physical activities into his lifestyle – progressing from no physical activity whatsoever to some form of structured activity on five days of the week. Sarah and I felt that this rapid uptake, together with the psychological and physical improvements noticed by both Sarah and Simon would make Mark an interesting individual to study. Perhaps his slightly unusual experiences would shed some new light on the topic.

Mark comes from a family with a strong history of mental disorders; his mother, although choosing not to receive treatment, has been housebound for more than twenty years as a result of her mental illness. Since his early twenties Mark himself has suffered severe and enduring mental health problems. A diagnosis of schizophrenia with major depression resulted in several lengthy hospital admissions and courses of electro-convulsive therapy during the first ten years of his illness. Since the onset of his problems he has also been taking anti-psychotic medication[10] although there have been periods when he has discontinued the medication himself, troubled by side-effects such as loss of concentration and feelings of "fuzziness". According to his medical records, several relapses resulted in hospital admissions which were attributed by Mark himself to his cessation of medication.

Although Mark did well in school, with no reported problems, before moving on to a two year college course and then taking A-levels, he had difficulty finding work on leaving and was unemployed for four years. The reasons for these difficulties are unclear. Mark's employment difficulties continued after he became unwell; he reports working for a single three month period but had been unable to find any other work since the onset of his mental health problems.

Three years before starting at Redview Lane Mark was involved in a single incident that resulted in him being him being held on remand for several months before being detained under the mental health act. Being sectioned required him to move from his own flat into an in-patient mental health residential ward and prevented him taking

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[10] Sulpiride – a traditional anti-psychotic medication for schizophrenia and other psychoses. Known side-effects include dystonia (abnormal face and body movements), Parkinsonian symptoms (e.g. tremor), dyskinesia (fragmented bodily movements), akathisia (restlessness), and tardive dyskinesia (rhythmic involuntary movements of the tongue, face, and jaw), hypotension, fluctuating consciousness, muscular rigidity, cardiac problems, sweating, urinary incontinence, drowsiness, apathy, agitation, excitement, insomnia, convulsions, dizziness, headache, confusion, dry mouth, blurred vision, impotence, weight gain, blood disorders, eye disorders (BNF 44, 2002).

part in any independent activities outside of the residential centre. At the time I interviewed Mark the restrictions were beginning to be lifted and he was permitted to make the short walk between his residential ward and Redview Lane alone. According to mental health staff, Mark settled in to the residential centre very quickly with no subsequent incidents. Staff at the residential centre reported no problems or difficulties working with Mark, although he was recorded as being socially withdrawn and sedentary. Mark was seen as something of a "couch potato" who resisted emotional contact with both other residents and centre staff. Around this time Mark's medication was changed to an atypical anti-psychotic[11].

Since he started at Redview Lane, Mark's medical records report an increased participation in a range of vocational and social activities as well as daily participation in several forms of physical activity. At the time I interviewed Mark, his mental health was stable with no signs of psychotic symptoms or major depression. He was continuing to self-administer his anti-psychotic medication with no reports of compliance problems. It is recorded in his medical records that, at this time, Mark saw himself as *recovering* from schizophrenia.

One thing leads to another

Although Mark reports some varied physical activity participation in school that included a little rugby and athletics, football was his first choice sport:

> I'm better at football than anything else cause I used to play a lot when I was a kid … I used to play pretty well I thought when I was a school. I wasn't in the school team – I wasn't good enough for the school team.

Football was the thing Mark says he most enjoyed and he recalls playing as a child during lunchtimes, weekends, school physical education lessons, as well as for his local team, the Falcons. From the time Mark first became unwell up until the time he began exercising at Redview Lane, a period of around twenty-five years, he took part in no physical activity whatsoever. Mark said simply: "I wasn't into exercise during that period. Just wasn't."

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[11] Olanzapine – one of the new generation of atypical anti-psychotic medications that are generally "better tolerated" than traditional anti-psychotics. General side-effects of atypical anti-psychotics include weight gain, dizziness, tachycardia, and postural hypotension (slouching). Additional side-effects of olanzapine may include drowsiness, speech difficulties, diabetes, and Parkinson's disease. (BNF 44, 2002)

It was only seven months before I interviewed Mark that he had begun to engage in any kind of physical activity. Mark viewed this change in behaviour as "starting afresh" – a phrase he used three times to describe his new activity. Mark described how he started with exercise:

> I had a chat with Sarah when I was in woodwork and she suggested that I take up a bit of exercise to get a bit fitter. She said I wasn't very fit. So that's what I decided to do. Decided to take up a bit of exercise – on the exercise bike. That's what I started on. And I progressed – one thing led to another – progressed to football, badminton and walking group.

Both in terms of frequency and type of activity Mark's progression has been startling; he now regularly participates in football, walking, badminton, and gardening groups based at Redview Lane in addition to maintaining the once weekly session on the exercise machines which comprises cycling, rowing, and step-ups. Each of these sessions is scheduled to last around forty-five minutes although Mark's fitness is not good enough to allow him to continue for this duration on exercise machines. Low intensity and keeping the exercise manageable, it seemed, are key to Mark's successful adoption and adherence. Talking about the exercise bike Mark was very clear:

> (I) started off at about two or three minutes then stepped up to about five minutes. Comfort. That's what I think. I try not to overdo the exercise. I try to stick within my limits ... (Now) on the exercise bicycle I do ten minutes – I know that I can comfortably do that – I'm OK with ten minutes ... Say twenty minutes on the bike, I wouldn't do that 'cause that's beyond my limits.

Mark felt that the only negative aspect of his early exercise sessions was that they were "a bit slow to start with". A little encouragement, "Sarah said that you'll improve as you go along ... (and) it was true", combined with his own enthusiasm are the two factors that Mark identified as helping him through the early days. In his view, "I've got the enthusiasm for it. That's important ... got to have the drive to do exercise. You've got to want to do it." Improvements in his exercise performance seem to have been an important consideration for Mark. According to Simon, Mark's motor skills and fitness levels were poor when he first started badminton:

> His co-ordination and hitting the shuttle was OK but it wasn't brilliant. And it was like he was rooted to the spot, he wouldn't move to it ... he was quite static, very static. If the shuttle came through he'd hit it, maybe take a few steps to it but nothing major ... I don't think that he was that fit basically.

According to both Mark and Simon, Mark's fitness has improved over the seven months. Mark felt simply, "I'm a bit fitter than I used to be. Like doing the wood work, I can saw pieces of wood easier." Simon commented:

> His badminton has improved so much. He's moving about the court a bit more and he's reaching for shots – that's really noticeable. I think that, again, his fitness has got a little bit better.

These fitness improvements seem to have been important to Mark on three levels. The first and most obvious value lies in Mark's increasing awareness of the importance of physical health and fitness: "Well, I'm older hopefully I'm wiser about the body. I realise its important to be fit – to look after your body." Perhaps as a result of health and well-being information he had gained through staff at Redview Lane, or perhaps simply a slow process of personal realisation experienced as a result of the physical effects of his mental health problems and treatment, Mark has come to value his physical health and fitness as he grows older.

Secondly, irrespective of any direct value of fitness improvement itself, tangible improvements such as increased ability to saw and better digging ability when working on the garden have personal resonance as they directly affect his ability to engage in his personal interests. According to Mark, exercise "helps me build up my strength for digging the weeds in the allotment… it's made me feel stronger, capable of doing the gardening." In other words, improved fitness has increased his ability to complete the tasks that are a necessary part of the vocational work that he wishes to pursue in the future. Finally, Simon observed that when fitness improvements are pointed out to Mark as having occurred, he is visibly pleased: "when you point it out he's well chuffed!" In this way, because Mark values physical fitness improvements, he appears to also gain a sense of achievement and satisfaction from his progress – particularly when changes are noticed by others.

Mark's improvements and benefits, it seems, go beyond changes in physical fitness. In football, Mark's favourite childhood sport, two levels of improvement have taken place. First, in performance terms Mark has begun to more obviously achieve on the football pitch. In Simon's view Mark had clearly changed since the time he started the football group when,

> he was very conscious he was making mistakes and didn't score or anything like that. Then he started being the top scorer 'cause he stood down the other end and kept hammering them in! Basically I think that was a day everybody noticed that, and focussed on that,

> and he achieved something ... Once he got into play and started scoring a few goals then I think the smile came on his face a bit more ... it was well noticeable. I must admit when he was doing that I think he was a little bit more sociable after the game as well. Maybe. Yeah, I'm sure he was. Sort of came out a little bit more. A little bit more talkative.

The important point here is not so much that Mark began scoring goals in the five-a-side games, but that his achievements brought him greater social confidence and attention. It seems that Mark, through the performance of personally and socially valued skills (i.e., scoring goals), moved from being a fairly quiet, timid and anonymous member of the group to a person with the confidence to interact socially with the other group members on an equal level. An increase in social confidence and improved social relations, it seems, resulted from the attention and credibility Mark gained from being the top-scorer; from performing the skills of the game at a competent level.

But, for Mark, playing football isn't all about scoring goals:

> I get satisfaction from playing football. If I score a goal I'm pleased with myself and it gives satisfaction that way. Even if I didn't score a goal ... there's more to football than just scoring goals. You can get pleasure from playing good defensively. Or passing or helping out your fellow players.

The second area of improvement, then, is Mark's performance of the physical skills of the game in general and his awareness of the value of these skills in a team setting:

> Football skills like trapping the ball, bringing it down and controlling the football and passing it - using your alertness. Like seeing a fellow player and passing to your fellow player and they might score from your bit of good work. It's improved. Improved from what it was. I used to be a bit selfish and just go for goal all the time but I realised that you got other players in better positions. So I pass to them and hopefully they score!

Perhaps an important by-product of Mark's improvement in motor skills is the increased awareness of his team mates. Mark's improving motor skills and greater "alertness" has, on the football field, allowed him, in the guise of helping his team to score goals, to begin to think of his team-mates. Although this example is at only a basic level, it hints at Mark's changing focus away from solely himself towards the consideration of other people in his social environment.

Sharing a common thing

Social factors, it seems, have been an important area of change in Mark since he moved to Redview Lane and began his physical activity participation. Social difficulties are noted in Mark's medical records as an on-going problem throughout his years of illness. In terms of social aspects, Simon described Mark when he began exercising:

> At first he would only give one word answers ... he was very inhibited ... I thought he was very quiet and very wary. I don't think he had a lot to do with other people to be honest. I think he found that maybe a bit hard. Unsure about himself maybe, just relating to people sort of thing or just being here was a shock.

Although any changes have been subtle, Simon sounds reasonably convinced that Mark has at least moved in a more socially open direction:

> From when I first knew him to knowing him now he is – I don't know if it's just 'cause he's got more used to me – but he is a bit more open. He'd say, 'Did you see the football game last night?' or the commonwealth games or whatever. You know. He likes his sport. He would mention it now – maybe say something.

Talking about the activity groups in general, Mark commented:

> Well, you're meeting other people that are sharing a common thing aren't you really? Common exercises. Sharing that experience, all doing the same thing, got the same experience and got something to talk about.

Mark, perhaps simply because the section restricts his unescorted activities, never exercises alone. *All* his physical activity is done either in a group setting or with a member of staff. This point is relevant in the light of his comments. The "something to talk about" that has resulted in these social benefits may be simply a case of getting a group of people together – in this case, *any* group activity would do. On the other hand, having something to talk about may depend directly on the *physicality* of exercise – something in the physical activity experience itself – and the opportunity to demonstrate physical skills in the context of a shared challenge. It's a difficult call, but on the basis of the comments of both Simon and Mark himself improved fitness and performance physical skills (i.e., scoring goals in football) have been, at the least, related to Mark's increasing social activity. Indeed it is even possible that Mark's increased social confidence has been *dependent* on the recognition he has received from team mates and staff for his improving performance. Ultimately, wherever the precise cause lies it is

difficult to doubt that some potentially important social changes have occurred in Mark – and that he, at least, attributes them to physical activity participation.

Using my time

Mark's comments suggest that he generally enjoys his exercise groups and experiences broad-based psychological benefits from his participation: "I enjoyed it, using the bike. It was a new experience for me 'cause I hadn't used the bike very much in the past. So I enjoyed it." Similarly, for football: "I feel healthier, more refreshed when I'm playing football. I enjoy it – have a sense of satisfaction that I actually played." When I asked Mark for more specific information about the psychological effects he experiences, he told me that he felt exercise also benefited him by helping his concentration. Besides simply saying "it helps you to think better … it helps you to concentrate better on what you're doing" he had little to say on the matter.

Mark's lack of elaboration (despite my requests) raised my suspicion on two counts. First, his inability to support his comments with illustrations or examples suggests that perhaps he was merely repeating what he'd been told by mental health professionals in the past. Second, and related, because one of the enduring side-effects of his medication, that he has often referred to, is reduced concentration it is possible that this issue had been already discussed with Mark at length; he could be simply trying to say the 'right thing' and seeking social approval. Most convincing is probably his statement that "I feel a bit more with it. A bit more alert than I was." This simple terminology sounds authentic – as well as being a credible outcome of seven months of regular physical activity participation. Mark repeated this kind of expression, together with references to his "sense of satisfaction", "feeling healthier" and "more refreshed", several times towards the end of the interview. This repetition, while remaining at a basic level in terms of terminology, serves to reinforce, for me, the authenticity of his remarks.

A further psychological benefit that Mark also mentioned on several occasions concerned use of his time. As a person who is used to having a lot of time on his hands as a result of his mental health problems and lack of employment for many years, this issue is intriguing. Mark showed that he was at least aware, or had been made aware, of the physical health benefits of exercise in remarks such as: "Since I've had a mental illness I've realised that sport – exercise – is important. Cause it's good for you. It's good for your blood circulation and your heart – keeps your heart healthy." He

explained that one source of his satisfaction stemmed from a feeling that he was therefore doing something worthwhile with his time by participating in physical activity: "I realised that I could use my time better ... That's important I think – to actually be able to use your time properly ... I've got the time to exercise so I use it." In short, Mark was happy to be filling his time with something that seemed, to him, worthwhile (for physical health reasons) and, simply, it kept him busy: "Busy – I like it like that."

Searching for deeper understanding

Interviewing Mark was not a problem-free process. The first issue, which affected the type and style of questions I asked and the subsequent depth of our discussion, was Mark's uncertainty and discomfort about being interviewed. General issues (discussed in chapter four) such as sharing and dwelling on highly personal and potentially painful life events, the 'closed door' effect, and the use of a tape recorder certainly applied to Mark. Although he was happy to chat in an informal manner about his exercise experiences when I was around Redview Lane, the moment Sarah asked if he would be prepared to meet me for an interview he became perceptibly less relaxed. Similarly, once the interview began – in a private room, with the tape rolling, after clearing ethical information and consent – I was acutely aware of a 'difficult' atmosphere. This was audible on the interview tape as a feeling of 'rushed' questioning from me and brief responses from him which, at times, left me with a feeling that I should not delve further into that topic; as if to linger over issues and expand discussion was simply not an option. For example, restrictions resulting from his sectioning clearly limit his opportunity to exercise alone. When I asked him for details of his exercise environment (e.g. group, partner, alone) his somewhat stunted responses suggested to me that he did not wish to discuss these issues; to some extent these 'choices' had, in effect, been made for him by the legal system.

Similarly, the tension surrounding any questions or conversation about being sectioned served to limit any discussion about autonomy because Mark, realistically, was permitted to exercise very little. As such, I gained little sense of the importance or relevance of autonomy in Mark's exercise participation. Its importance, if anything, was suggested more by its *absence* from our conversations than any overt reference. Mark's only comment concerning control referred to the precise ordering of his gym sessions:

> I decide what order I want... I decide what order I do the exercises. I might do the rowing machine and then the exercise bicycle second, step ups third, and so on. Then I might change it afterwards. On another day I turn up I might start off with the step ups.

On the basis of these limited remarks it is unreasonable to draw conclusions concerning the place of autonomy and personal control in Mark's life beyond observing that he has little – and what he has seems focussed around the details of activities such as his gym sessions.

I felt that Mark, while friendly, was not entirely relaxed or open during the interview. This is not to say that I developed a feeling of being lied to or manipulated; his responses were, I felt, genuine. Yet at times they were shallow. A major consequence of this was a distinct lack of elaboration or illustrations to help confirm Mark's comments as authentic – he rarely spoke of concrete personal experiences. Linked to this was a feeling that, at times, his responses were "fed" lines, repetitions of information he had been given during the course of his many years of mental health treatment and therapy. In particular, these concerned comments such as "exercise is good for *you*" and "it helps *you* to think better". The use of the second person, combined with his inability to elaborate or illustrate these comments with personal examples, led me to suspect a second-hand quality to his remarks. This perspective is strengthened when it is remembered that adverse physical health changes and reduced concentration are linked with the experience of schizophrenia, potentially as side-effects of anti-psychotic medication so are therefore a potential focus of therapy (Carpenter, 1996; Childs & Griffiths, 2003).

There are some indications, however, that I may be being unnecessarily harsh in dismissing Mark's remarks in this way. First, Mark's medical records document long-term "cognitive difficulties" and "deficits in interpersonal skills". It is highly likely, therefore, that even if Mark was able to conceptualise his experiences into coherent stories or accounts he would be unable to communicate them, particularly in an already tense interview context. Second, Simon explained his view that Mark was,

> quite laid-back in his inner self. I go to him, he wouldn't come to me. I think he likes his badminton and stuff but it's only when you play (that) he'd say he liked it. He wants to do it – but maybe he won't say it.

Mark, according to Simon, is a person who reveals, at best, a muted or toned-down view of enthusiasm; although he's keen he won't show it overtly. Mark's restrained

comments, therefore, may not be so much an indication of how he *feels* about physical activity, but more a reflection of how he *is* as a person. Once again in the context of a less than relaxed interview with an interviewer from outside the mental health services, any enthusiasm may be further muted. It may be that Mark's holding back on elaboration and personal stories was simply an inability to share his experiences in depth as a combined result of his personality, his illness, and the circumstances of an interview setting.

Conclusions

Mark's medical records, the opinions of Simon and Sarah, together with Mark's own behaviour and comments suggest that he has indeed experienced benefits through physical activity participation. These benefits include improved physical fitness, specific psychological effects such as improved concentration, increased social interaction and confidence, and a broad based feeling that he is doing something worthwhile with his time. Broad-based changes such as these have been reported in several other studies investigating the effects of physical activity in people with schizophrenia (see Faulkner & Biddle, 1999).

Notably for Mark, the benefits he experienced had accrued during only a seven month time period in which he has become a regular exerciser in addition to increasingly participating in vocational activities such as gardening and wood work. This time period was a very positive one for Mark – as noted in his medical records he considered himself to be "recovering from schizophrenia". In the context of the severe and enduring nature of Mark's mental health problems which have continued for eighteen years, significant improvement in mental health in only seven months can be considered to be rapid change. Often, for people with Mark's level of illness, change may take several years (Meise & Fleischhacker, 1996; World Health Organisation, 1992). The rapid nature of Mark's adoption of physical activity, while not unique (see Faulkner & Sparkes, 1999 for other examples), suggests that, perhaps, several factors in Mark's life were improving simultaneously and it was the sum of these changes that were moving him in a positive direction towards recovery (see Chadwick, 1997a; Repper & Perkins, 2003 for discussion of the diverse factors related to mental health change).

In this regard, it is difficult to identify which mental health benefits occurred as a direct result of exercise, which benefits co-occurred with exercise, and which were a result of the other factors in his life. Simon commented:

> I don't think, like with Colin [another participant], it's his main thing ... I think it's a combination of everything – not just his sport. Just, like we were chatting, achieving, about doing something active I think.

Simon's view matches the interpretation I formed through analysing all the data sources: that physical activity has had benefits for Mark, but these benefits are *in their place*. In other words, Mark's positive experiences through exercise have not been life-changing, but have provided tangible and important practical benefits on a day-to-day basis. Mark's response to my question of whether exercise had made him a different person in any way is revealing:

> No. It's not made me into a different person. I'm still Mark. But I feel a bit more energised. Bit more 'with it' than I did before I started. I was a bit lethargic. When I was in wood work (I) used to have trouble sawing through thick wood. And I can do it quite, well, not easily but I can do it easier now than I did before. So I find that's an exercise benefit.

This practical, down to earth approach to physical activity is also reflected in Mark's inclusion of exercise in his daily schedule. I asked whether Mark thought about exercise prior to taking part in a session: "No. I know I've got it on my agenda so I just wait until it comes round. I don't dwell on it ... (Then I) move on to something else – the next thing on the agenda."

5.3 THE FUTURE'S LOOKING BRIGHT

I think I was talented. I think that's what it was. I played for the school when I was young – eleven, twelve or thirteen. I played for the juniors, made two appearances, but scored one goal and I always remember that. I remember going down the wing, 'cause I played left half, and this ball came over from one of the players and I just looked up and hit it and it went behind the goalkeeper's head! I just took it as normal, just hit the ball and it just went in. It was great! I felt really, you know, just felt great. Thought I'd achieved something. We were at home against our local rivals, Bridgeside, who used to play at Borough Park. I knew the goalkeeper you see, he played for City in the end, Peter Reeves. I can't remember what the score was but that was our local rivalry. That was when I first started really. But I used to play football, outside, in the house gardens on my own, just kicking a ball. So really I started when I was about seven or eight I suppose. I used to play football over the park, Sunday mornings with my friends and then Sunday afternoons again, another match. I just got addicted to it. It just went from there really.

When I was about twenty I started playing in the local league for Wanderers. That was my first football team, I played for other teams, but I think that was my favourite one cause I was there the longest – about four or five years. I used to play left-back. We had an injury to one of our players, Terry Stone, he played left-back and I took his place. And then what happened, the manager, Steve Corr, was in goal and he had a knee injury and I took over in goal. I made about one hundred appearances in goal for the team.

I used to train over the park on my own. There's one of my favourite photos, one of the earlier ones before I had my breakdown. That's the house in the background and Woodland park where I used to train on my own – skills, like. I used to kick the ball in the air, let it bounce, catch it, do shooting practice with two footballs. I used to ride a bike at the time, and I did a bit of swimming then, so I was quite fit really. And football just gave me a kick, you know, enthusiasm! I just thought it was a great game, it really gave me a lift. I've always loved the game.

I stopped football when I was unwell 'cause I was pretty low. That was my first breakdown then. I was twenty-eight, I can remember that very well. I think it was anxiety, stress, work, everything, like. I'd just done too much and it hit me for six. I just had a breakdown and that was it really. I was over at my mother's house, I used to go to

sleep a lot, I switched off. I used to go into my own little synchronisation sort of thing, I used to sleep for hours and hours. The head doctor of the mental side of the hospital came round to the house and saw me a couple of times; come to my room, just say "we're checking you out", ask me a few questions. She knew I was very low and she said you've gotta go to Brentree – we're taking you in.

So I was at Brentree hospital for a bit, about two or three months I think it was. I was so bored in there - nothing to do. I just stayed in the ward and just went to bed and that was it. I'd just get up, have something to eat, a cup of tea, sit in the television room, talk to somebody and then just hang about for a couple of hours unless a doctor wanted to see me. I think that's what made me go to sleep 'cause I was bored, depressed. I thought, well, I've got nothing else to do. I just want to go to sleep. The doctors knew that as well, my morale was still quite low, that's why they asked me to do some activities. They tried to get me to do exercise just to get me out of that system.

It was the group, starting to talk to people, and the medication I think. I started Prozac and saw a few doctors and I started getting better. The medication helped me to stabilise myself. I started talking and got out of my shell. It was important to talk to people, communicate with people and once I started talking to people it gave me more confidence. So all that was on my own part really, I did it myself, started to talk to people myself.

I started with some activities like going somewhere in the van for a couple of hours. Chaps would come round and take us out, so that was like a walking group really, just to get out of the hospital. And then I started going to gym and went to OT and then I started going swimming – that was it then. It wasn't so bad then. My confidence came back. I was actually on the road to recovery.

Once I got in the gym I used to go and do those exercises on the bars, the weightlifting, and the bike and what have you. I was doing it every day, five days I think, about nine o'clock in the morning. It was an early session! It was hard work 'cause I wasn't so strong then but I was there about forty five minutes. 'Cause I was doing exercises I felt a bit better like, felt more, a bit of energy, felt a bit stronger. Rather than feeling low, when I was doing some activity - the exercises - I felt better. I gained something out of it. 'Cause when I was low I had different mood levels - the Prozac I was on that'd alternate the moods I was in. When I took that it gave me a lift. But when I was doing exercises it was similar to that, it gave me a lift similar to the Prozac 'cause I'd done something, I'd participated in something. It was something out

of the blue that came to me and I just had a go. I just attacked it in a normal way and, you know, I appreciated what I'd done in the end. I got something out of it.

It was only a couple of weeks. After that I knew I'd had enough of it - that was enough of the gym for me I think. It did enough to boost my morale. I was a little bit better then and I could do other things like routine work, therapy work, go to OT, play table tennis, do quizzes and I used to do a bit of cooking there as well. I used to make my own way down to the OT, whereas sometimes when I was low they used to come over and meet me to make sure I would turn up. That's the time they knew I was low - depressed.

It could have been a year, or, I think it was, yeah. It took quite a long time to get back to normal, the person as I was. 'Cause I made a recovery and then I started playing football again, just kind of natural really. I've just always been mad on sports! The sort of games that I played in the past, when I was younger, I sort of started back playing them again. It's just the enthusiasm really, that's what has changed my life. Well, apart from the music I would say. If I didn't play football or have any music I don't think I'd be here today. I think it's kept me going. Well, it brings all your talent out, your ability in other words. It brings the, say, the cleverness out of you. Cause we've all got talents, everybody's got some talents, doesn't matter if its art or its football, engineering, cars, anything, I think we've all got a talent. Mine is activity - sports. Keeps me going, keeps the adrenalin going.

I like to play other games – it's just, like, *doing*. When you do all these other sports it's not so boring. I think it's better for a person to do a different sport, see how you get on, rather than just sticking to the one game. Skittles, I played that for must be sixteen years now I think I've been with the team! I've been with the team so long it's like a family really. Pool, I play pool sometimes - that's the other sport. But it's mostly the football and walking really. It's basically football, swimming – a bit of swimming – walking with the walking group and badminton sometimes.

I feel more relaxed after I've been swimming - something about the water makes you feel good. When I was young I was afraid of the water. My mum used to encourage me to jump into the water and I was just terrified of water! But I met a chap that used to live over near Oakside baths where I used to go that taught me how to swim - breaststroke and front crawl - and gave me a lot of confidence in the water. I still get the same confidence 'cause I know that I can swim. It's like when I go on holiday, I know

that I can swim in the sea, I'm quite a strong swimmer, I know that I can do it – it gives me a buzz.

I would say the last time I swam was about a month ago with Simon. I was looking forward to it 'cause I know it'll just come natural, see. Switch off and concentrate on swimming a few lengths, just taking it steady. Think about other things as well, what's happening and that. It could be what you saw the other day, or what you're gonna do an hour after you've finished swimming, or your mother and father. Depends what mood you're in. If you're in a sad mood you might think of your dad, I would anyway, always think of my dad now and again. Get flashes with him like, but I think it's a good thing in a way. 'Cause I was so close with him - when I went to our dad's funeral I was in hell of a state. I cried my eyes out. Terrible. Nobody likes going to funerals do they? But I always think of him, I always remember him.

I think it was the doctors - the doctors wanted me to keep being active. I used to go to the gym to do a little exercise with Sarah and Catherine, the physios. They made a programme for me and I started all different activities. They asked me what I wanted to do, told me what was available and what I could fit in, like a school programme. That was five years ago when I was here – I only come here for sports now. So I've got a big connection with Redview Lane really. When I'm not actually working, doing jobs here, I still communicate with the people here. Keep close with the people, the same people. I'm sort of supported. I feel supported with other people here, especially with the football team. It's people that I never knew before, but I got friendly with, made good friends, and we all just participated in sport. Family as well, they supported me since I was ill really. They used to come round, make sure I was up, when I went out with them they asked how I was. You know, just good friends really – just care.

I used to be so quiet, see, and shy. Now that I've got better I'm just talking and more relaxed - I feel better. And I focus better as well. Like when I used to answer the phone I used to stutter, get embarrassed. I was stuck for words. But now I'm just a different person. My mum's seen it as well, the change in me. I feel more confident when I'm speaking to somebody.

Since I was in Brentree I really feel on top of the world. Until I get an injury or something I don't want to stop really. I'm an active person, sports and interests - that's about it I suppose. It'll have to come to a halt when I get older, football-wise, I'll have to keep playing cricket and walking and just slow it down, don't do so much. But there's always cricket or something you can play when you get older.

The future? Well, I think it's looking quite bright. I'm optimistic. 'Cause you don't know what's gonna happen the day after do you? I could have a heart attack or something, anybody can, can't predict the day after can you? It's why you gotta make the most of the day you're doing now. You know, it's never tomorrow - you just gotta start today.

One of my great moments

I had already met Colin through my participation in the five-a-side football group at Redview Lane prior to Sarah suggesting him as a participant in the light of his improved mental health during the preceding eighteen months. Colin, a man in his mid-forties, always seemed to take an active and vocal role in organising and encouraging his team while wearing all the 'right' football kit and appearing to be very enthusiastic about the game. I felt that he had probably played a fair bit of football before because although he was visibly overweight he compensated for his lack of fitness by having a good understanding of the game that allowed him to assume a fairly dominant role for his team. On the day of our interview, Colin arrived wearing his football kit with a plastic carrier bag containing three framed photos of himself when he played for various local teams, a scrapbook containing photos of friends from his different activity and sports groups, and some sports trophies. Just as he had said he would the last football session, Colin had prepared for the interview by writing three pages of notes about "things I wanted to say".

A relaxed, enthusiastic, open, and honest atmosphere characterised the time I spent talking with Colin. Although I began by asking questions from an interview schedule it quickly became apparent that Colin had lots to say – he clearly wanted to tell me about his experiences. After the interview Colin and I walked to the café at Redview Lane where we drank a cup of tea and, together with Sarah and some of the other clients, continued to chat for a further thirty minutes or so. Colin spoke excitedly about the Redview Lane five-a-side team, the football world cup, and the way he likes to spend his mornings – getting up early instead of sleeping late as he did when he was unwell, eating Frosties, listening to music, and generally having a tranquil start to the day. I left Redview Lane that day wondering how this seemingly contented person could ever have experienced such severe mental health problems.

Colin's medical notes record as a "normal" childhood with no identified developmental difficulties or problems at school beyond some bullying which he said

was not serious. Leaving school at sixteen years of age without qualifications, Colin continued to live at is parents' home initially working for several months as a casual labourer. He worked in two further jobs before becoming unwell, the second of which he held for several years.

Records of Colin's first hospital admission note his enthusiasm for football, an enthusiasm to which he referred during interview: "I just thought it (football) was a great game you know – it really gave me a lift ...I just got addicted to it really." An enthusiastic involvement in football appears to stem from Colin's early childhood years:

> I played for the school. I first started when I was young – eleven, twelve, or thirteen ... But I used to play football outside in the house gardens on my own – just kicking a ball. So really I started when I was about seven or eight I suppose.

Regular competitive football for a local amateur club continued through Colin's young adult years and is something about which he seemed to be proud. Showing me a photo of himself in the club's kit he proudly told me that he "made about one hundred appearances in goal for the team".

Although Colin's physical activity participation centred on football, he also valued his involvement with a local cricket team and recounted the story of his most memorable cricket performance:

> I got 170 not out. I played for the Spartans in Burrow Green and that was a hot day as well. I was just lucky as well in a way – I was just hitting the ball all over the place! ... That's one of my great moments I think in my sporting calendar.

Colin also cycled to and from work and went swimming on a less regular basis. The combination of these activities with his football training left him in good physical shape:

> I used to train over the park on my own. I used to kick the ball in the air, let it bounce, catch it, like, just do shooting practice with two footballs. Just to keep fit really. Just preparing myself ... I used to ride a bike when I was at work at the time (and) I done a bit of swimming then so I was quite fit really.

I just want to go to sleep

Colin's participation in all forms of physical activity stopped abruptly when he became unwell. Colin offered a blunt description of the onset of the acute phase of his illness: "I just had a breakdown and that was it really ... Just anxiety, stress, work, everything like – just done too much." Colin's file records an initial hospital admission

during his late twenties when he was diagnosed with "schizophrenic illness with marked negative symptoms or a depressive illness". This period of hospitalisation followed a year in which he had become increasingly withdrawn to the point that he was taking frequent days off work. Colin's records suggest that by the time of discharge he had recovered satisfactorily, returning to live in his parents' home and to his previous employment.

It wasn't until five years later, following a death in the family, that Colin experienced further documented mental health problems. Colin's re-admission to hospital, lasting approximately three months, marked the beginning of a lengthy period of serious mental health problems. Over the next two years Colin was re-admitted to hospital on three further occasions during which time he was diagnosed as suffering "schizophrenic symptoms with marked mood component or an affective disorder", "abnormal grief", and paranoia. During the several months Colin spent in hospital he was treated with anti-psychotic and anti-depressant medication and electro-convulsive therapy.

Colin described his time in hospital:

> I was just bored in there. Nothing to do... I just stayed in the ward and just went to bed and that was it. I was so depressed ... (I'd) just get up, have something to eat, a cup of tea, uh, just sit in the television room, talk to somebody and then just hang about for a couple of hours unless a doctor wanted to see me and see how my progress was ... I thought, well, I got nothing else to do ... I just want to go to sleep.

It was against this backdrop, of complete physical inactivity and minimal diversion or stimulation, that Colin gradually began to add low level exercise to his daily activities:

> (We'd) go somewhere in the van for a couple of hours and chaps would come round and take us out for a couple of hours so that was like a walking group really just to get out of the hospital. And then I started going to gym and went to OT and then I started going swimming – that was it then. It wasn't so bad then. I was actually on the road to recovery.

Although this comment suggests a rapid and problem-free resumption of physical activity, this picture may be misleading. As Sarah suggested to me during discussions, Colin's full return to sport and exercise had been far more gradual process – this stage represented merely the first tentative steps towards resumption. Colin's own words suggest that this initial involvement was more a process of returning to *some* activity than a one-stop return to *regular* exercise:

> (The gym activity) was only (for) a couple of weeks I think. After that – cause I knew that I'd had enough of it and that was it – I done some other things ... That was enough for me I think ... I was a little bit better then and I could do other things like going to OT, and I used make my own way down to the OT, whereas sometimes when I was low they used to come over and meet me to make sure I would turn up like. That's the time they knew I was low.

Colin's remarks suggest that while the gym and walking sessions at the hospital might have acted as a trigger to prompt his return to a more active daily lifestyle, this period of exercise participation was rather short lived. Once Colin was discharged from hospital no further reference was made to any physical activity participation either by Colin himself, his mental health professionals or his medical records for several years.

Following what turned out to be his final hospital admission Colin was referred to Redview Lane. Several documents, written while Colin was at Redview Lane, help to build a fuller picture of Colin's mental health at this time. It was the most recent years of Colin's by now lengthy psychiatric history that had been particularly disabling, but this acute phase of his illness was considered to be over when he started at Redview Lane. According to his records, Colin's initial psychotic symptoms had "settled" very quickly and he was no longer experiencing delusions, hallucinations, or suicidal ideation. He was, however, continuing to experience prominent and debilitating negative and affective symptoms which included mood disturbances and low levels of motivation. A neuropsychological report noted that Colin had a widespread impairment of brain function that had deteriorated since a previous testing, a change that was attributed possibly to his current depressed mood. The reporting psychologist felt that the test results were not positive from the perspective of Colin making a successful return to work. Other documents describe Colin as being shy, quiet, unmotivated and low in confidence at this time.

Three years after starting at Redview Lane a report was prepared for a review meeting to re-evaluate Colin's care programme. By now, Colin was living independently in a community flat and scheduled to attend Redview Lane on two days per week and a work scheme on three days per week. The report notes that, despite visits from a community care worker on two mornings a week and phone calls on the other three weekdays to assist Colin in getting up and engaging in his scheduled activities, Colin had attended Redview Lane no more than five times during the preceding four months. The care worker visits were eventually stopped as apparently

Colin was getting up when the care worker came but then returning to bed when they left. At this time Colin typically spent his mornings in bed and only got up mid-afternoon. "No motivation" and "lack of interest" are the reasons Colin was reported as giving for not maintaining his attendance at Redview Lane. The report notes his "mental state remains very stable with no reports of psychosis or depression although his motivation for any change or increase in activity remains an issue." The report finishes by recommending discharge from Redview Lane and a CPN (Community Psychiatric Nurse) being available to assist Colin to find a daytime occupation "should he show any interest in doing so".

It was two years after leaving Redview Lane that Lynn began working as Colin's care co-ordinator. Lynn described Colin as having experienced "no sort of hallucinations, delusions, anything like that for ages. Well, for ten years at least" although he still had "very poor eye contact, (and) rarely said a word to anybody". Referring to the time she first began working with Colin, Lynn commented:

> He was OK. What I've always described Colin as is institutionally dependent. Because although a lot of his symptoms have completely disappeared, especially with the medication that he's on, ... (and) the life changes which have meant that he's not in a stressful situation that causes symptoms in the first place, actually all the indicators were good that he could get better. But he had been in the services for about twelve years, he had been very heavily reliant on care staff and people coming in to sort things out for him on his behalf and he was very, very unconfident of doing anything himself.

It appears that while the acute (psychotic) stage of Colin's illness was indeed either over or being effectively managed through his medication, Colin was far from fully recovered. Although Colin's positive symptoms had long since ceased, debilitating negative symptoms and social difficulties remained as pressing issues. According to Lynn:

> Colin had left (Redview Lane) about two years before I actually caught up with him. He was sort of out in the community but not doing very much at all ... When I picked him up he'd get up in the morning – he'd ask for an afternoon appointment – he'd get up on the morning, go down to the pub and have a sausage sandwich or something like that then come back to meet me ... He was very fearful of going back to work. That's one thing he said when I took over, 'I don't want to even consider going back to work in case I get ill again'. Cause that's when he became ill before.

Simon's understanding of Colin's lifestyle at the time agreed with this view: "what I gathered from the OT's was (that Colin) lacked in confidence and spent most of his time in bed asleep or just in his flat".

A lift and a return

Clearly, some major changes took place for Colin to move from this inactive and unmotivated state to a full re-engagement in sport and physical activity. The first question, perhaps, is how did this process of re-engagement take place? Important in the initial stages of this process, it seems, was input from mental health professionals which encouraged Colin to become more active. Referring to his time in hospital, Colin explained the reasons behind his initial forays into physical activity:

> I think it was the doctors. The doctors wanted me to keep being active. And it just went from there really ... My morale was still quite low that's why they asked me to do some activities - just to get me out of the system.

After leaving hospital, Colin attributed the organisation of his exercise sessions to the physiotherapists at Redview Lane:

> They (Sarah and Catherine) made a programme for me and I started ... I think they asked me what I wanted to do, but they just told me what was available and what I could fit in – like a school programme.

While this initial encouragement and organisation was important, Colin's comments indicate that his reasons for participation did not revolve solely around the wishes of mental health professionals. Instead, Colin also experienced some simple, small, but potentially significant benefits from his early exercise experiences: "Cause I was doing exercises – it affected me mentally. I felt a bit better – felt more, a bit of energy, felt a bit stronger like ... I just felt a bit better." On the basis of Colin's descriptions of the feelings which resulted from physical activity participation I began to feel that exercise provide him with *relief* from his mental health problems and a small *stepping stone* towards improved mental well-being: "When I took (Prozac) it gave me a lift. But when I was doing exercises it was similar to that. It gave me a lift similar to what I was on with the Prozac[12]."

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[12] Prozac is the trade name for fluoxetine, a SSRI anti-depressant medication also prescribed for obsessive-compulsive disorder (BNF 44, 2002).

The process of how Colin initially began exercising was, it appears, characterised by support, input and encouragement from mental health professionals combined with small but immediate psychological benefits which were potentially highly significant given the circumstances of his illness at the time. A second question, then, is why did this short-term initial participation continue to grow – what have been the reasons behind Colin's long-term re-involvement in physical activity?

Colin's enthusiasm towards football before he became unwell may be an important factor. While talking about Colin's living arrangements, Lynn observed:

> He has got a history of doing sport activities in school ... There's loads of his memorabilia about. Especially sporting memorabilia, actually. Lots of things that he's won like in school, photos of him in various teams, and things like that ... He's very proud of all that stuff.

Colin's words and actions confirm the importance of his football participation and the value which he attaches to it. Showing me one of the photos he brought to the interview (of himself in a team tracksuit) he remarked: "That's one of my favourite photos ... I wanted the game videoed but it was too expensive so I ended up having that done."

A feeling of his exercise participation providing him one route back to his *well self* is provided by his description of his gym activities while in hospital: "Well, I was back – once I got in the gym I used to go and do those exercises on the bars, the weightlifting and the bike." In Colin's mind, it seems, a re-involvement with sport was almost inevitable once he was sufficiently well to exercise:

> I made a recovery and then I went back (to football) again. Started playing again... I've just (always) been mad on sports ... The sort of games that I played in the past when I was younger, and I sort of started back playing them again.

In this sense, the acute stages of Colin's illness to some extent prohibited physical activity participation: during the psychotic phases he was simply unable to exercise due to the severity of his illness. The view Colin communicated during interview was that, while hospitalised, effective medication, combined with social support, had been the first requirement for him to begin exercising. Colin himself identified two clear factors which had helped him start physical activity while in hospital: "I think it was the group – started to talk to people. And the medication I think. I was on Prozac. Started Prozac and saw a few doctors and I started getting better." The combination of positive social

support and medication, it seems, helped Colin to "start to get better". Once out of the most acute phases of illness, he was in a better to position to return to exercise.

Bringing the cleverness out

In addition to participation in football, and physical activity in general, being one way for Colin to return to the person he was before he became unwell, Lynn held the opinion that sport was something he was *good at* – something in which he could achieve success and recognition. Having a talent, or being able to achieve success and recognition in an activity, was mentioned by both Lynn and Simon as being of importance to Colin. The opportunity to *do well*, Lynn felt, held an added attraction for Colin:

> Every other week we have a social group which is to try and normalise social activities like take them to the pub and this and that. But also very regularly we do some sort of sporting activity and we did outdoor bowls. We've done it twice. And he is about the only person that can actually do it! (laughs). All these balls that are, like, miles away from where they started! ... It's generally a really good laugh 'cause nobody can do it but he was really proud that he could get near. So you know the whole, his self-esteem is all up around that sort of being able to do things and prove to other people that he's good at things.

Another angle on achievement, perhaps closely linked to doing well, is the opportunity for Colin to do better than others. Both Simon and Lynn recounted the same story. In Simon's words:

> We did a badminton tournament last year and Colin came third but there wasn't a prize for third place. And he went out and bought himself a trophy for badminton – third place. I thought that was quite a, you know, he just admitted that he wanted to achieve something.

Lynn had the opinion that doing better than others – beating others – was important to Colin's well-being: "It's kind of like, 'I'm better than these people'. That's what feeds him. That's what makes him feel good." Simon took a more moderate view. In response to my enquiry of how important this need to achieve might be to Colin, Simon replied: "It's hard to say. He's not as bad as some I know ... He wants to do his best I think ... He's quite competitive sort of thing – but with a smile."

Colin himself observed that he was "talented" as a young footballer. Referring to his days of playing school football:

> I played for the juniors and I scored one goal ... and I always remember that ... I remember going down the wing – cause I played left half – and this ball came over from one of the players and I just looked up and hit it and it went behind the goalkeepers head ... It was great! I felt really, you know, just felt great. Thought I'd achieved something you know – very excited and that.

Combined with his reference to representing the county at school level football ("When I was at school I played in the (county) schools championship – that was an experience"), Colin's memory of scoring a goal suggests that he does value sporting success – *achieving* something, and demonstrating competence at something. However, his remarks reveal nothing of a competitive orientation in the sense of deriving satisfaction from beating others. He appears to value instead a more straightforward sense of achievement or competence, and perhaps recognition, derived from actually taking part in – or *doing* – organised sport. This feeling is reflected in his comments on his physical activity participation while in hospital:

> I'd done something. And I'd participated in something. It was something out of the blue that came to me and I just had a go. I just attacked it in a normal way and I uh, you know, I appreciated what I'd done in the end. I got something out of it.

Similarly, when it came to swimming, Colin seemed to simply value his own ability to swim:

> I still get the same confidence 'cause I know that I can swim. It's like when I go on holiday I know that I can swim in the sea – I'm quite a strong swimmer. But I know that I can do it – it gives me a buzz.

More generally, he remarked: "It (exercise) brings all your talent out ... your ability in other words. It brings the – say – the cleverness out of you ... and I get satisfaction from that." Colin's reliance on *talent* – being able to do things effectively – was underlined by his comments about the diverse range of activities in which he is involved:

> Art, work experience, wood working, OT, and a bit of gardening as well ... it just showed me some other talent of mine and what I was capable of doing ... I want to do other, explore other things.

Rather than a perhaps unhealthy focus on demonstrating superiority over other people, it appears that Colin's motives for *doing well* at sport, as well as other activities, lie closer to a desire to develop his own skills and abilities – and to derive satisfaction from his own competencies and abilities.

A guilty conscience

Another issue that may have encouraged Colin's return to physical activity is concern over his body weight. Before the onset of his mental health problems, Colin told me that he weighed around twelve stones. The photographs he showed me of himself when he played football confirmed this estimate as reasonable – although tall, Colin was a thin, lean build. Since becoming unwell, Colin's weight has fluctuated considerably. Colin described his time in hospital:

> Partly because of the depression that I was in – the mental state I was in. I didn't have a lot of food really... I didn't like the food in the hospital – didn't have a lot of food that I would like at home ... I didn't drink lager for about – must have been six months, I'm not sure, or a year. I lost a lot of weight then... And then when I left hospital I started to drink. After that I think that's why I put my weight on. I got more of a habit of eating then.

During the years between discharge from hospital and his re-engagement in activity, Colin's weight increased dramatically. Prior to him joining the exercise groups at Redview Lane, Colin's weight was in excess of nineteen stones. It had apparently increased by more than six stones probably as a result of lifestyle factors (such as minimal physical activity, potentially poor diet, alcohol, excess sleep) combined with the weight gain side effects of anti-psychotic medication (Allison et al., 1999). Colin had begun attending the healthy eating group at Redview Lane on one afternoon per week and his attendance suggests more than a passing interest in weight-loss issues. Colin's comments indicate some dissatisfaction with his body weight:

> My normal weight when I was young was eleven-and-a-half stone, twelve stone, cause I was tall but not so big as I am now ... I wish I was that weight now ... I want to lose weight, I've been to see a dietician, I've lost two pounds in the past ... It's not so bad now ... 'cause I'm tall it doesn't really show so much does it? But I feel myself that it does. I've got a guilty conscience about my weight and I've always told the doctor that I want to lose weight.

Despite increasing his sport and physical activity participation, Colin has not been successful in losing weight. In Lynn's view the side-effects of Colin's medication are the primary reason for this:

> He's still on risperidone[13] which has side-effects of weight increase. His diet is not particularly, well, I can't talk (laughs). He does have a

[13] Risperidone – an atypical anti-psychotic medication. General side-effects of atypical anti-psychotics include weight gain, dizziness, postural hypotension (slouching), Parkinsonian symptoms (e.g., tremor), dystonia (abnormal face and body movements), akathisia (restlessness), and occasionally tardive

> fry-up every so often but he's not over-eating at all. It's the medication.

According to Lynn, Colin's participation in the healthy eating group at Redview Lane played an important role his resumption of sport and physical activity beyond stimulating his awareness of the weight loss benefits of regular exercise. Lynn felt that the healthy eating group *re-connected* Colin with people and events at Redview Lane including, crucially, the football group. When asked how Colin regained his interest in playing football, Lynn suggested that Colin's visits to Redview Lane for the healthy eating group exposed him to the physical activity opportunities on offer at the centre: "I think it was more kind of osmosis rather than a deliberate referral. He saw stuff going on about the football team and that's what started him off. And it just kind of ballooned then." This "ballooning" of Colin's activity participation, although not resulting in any significant reduction in body weight, seems to have had a positive effect on his physical fitness. Simon compared his memories of Colin at the time he joined the football group with his observations eighteen months on:

> When he first came he was out of breath, really wheezing ... his fitness was very poor ... It's just that he hadn't been doing anything for a couple of years. But he has progressed so much in that. He can play a full game and he's, alright you can tell he's finding it hard work a bit, but his fitness has improved a lot ... he's running up and down.

While weight loss issues were clearly of interest to Colin, the weight reducing benefits of exercise do not appear to have been a key factor in motivating him to engage in regular physical activity. Although the healthy eating group likely raised Colin's awareness of the health benefits of both good diet and regular exercise, the group may have played a more important practical role by introducing Colin to the sport and exercise opportunities available at Redview Lane and facilitating the social links that encouraged him to join the groups.

Out of my shell

Lynn, Simon, and Colin himself repeatedly made reference to social issues suggesting that social support and positive social relations are a critical aspect of

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dyskinesia (rhythmic involuntary movements of tongue, face, and jaw). Additional side-effects of risperidone are insomnia, agitation, anxiety, headache, drowsiness, impaired concentration, fatigue, blurred vision, constipation, nausea, vomiting, indigestion, abdominal pain, sexual dysfunction, urinary incontinence, elevated heart rate, hypertension, rash, and blood disorders (BNF 44, 2002).

Colin's day-to-day well-being. A strong link appears to exist between Colin's physical activity participation and his social relationships as, according to Lynn, much of Colin's social life revolves around sport and exercise:

> Surprisingly for someone with such a long-term history of mental illness, he's got a big social network of friends. Around the football team, around the cricket club and this and that – he goes to these functions ... A lot of the people that we have have poor social skills and he hasn't really ... I mean he more associates with the staff in a sense because he's more sort of 'with it' if you like.

According to Colin, social factors have been consistently important throughout all phases of his illness and recovery. Referring to his initial re-engagement in exercise while in hospital at both the gym and the swimming pool, Colin commented:

> I started talking and got out of my shell ... It was important to talk to people – communicate with people... Once I started talking to people it gave me more confidence.

In particular, Colin observed: "When you're swimming with other people you can have a chat as well like – there's somebody to talk to." Although these social interactions may seem small they were likely neither trivial nor insignificant. Colin's descriptions of his time in hospital (e.g., "I was just bored in there, nothing to do ... I just stayed in the ward and just went to bed and that was it.") indicate that, for him, even brief social interactions and stimulation may have been extremely important parts of the daily routine of hospital life.

Looking back on his participation in physical activity, Colin also emphasised the value social relations held for him. In relation to the skittles team he commented: "It's like a family really – I've been with them for so long." Similarly, he referred to the people he has come to know through Redview Lane:

> I'm sort of supported – I feel supported with other people there (Redview Lane). It's people that I know mainly. Especially like with the football team, its people that I never knew before but I got friendly with – made good friends – and we all just participated in sport.

With reference to the sport and exercise groups, Simon commented:

> Colin has always been quite sociable really to all the people once he's there. But at the beginning, alright, he kept to the people he knew mainly, or along those lines. Now I feel he's come out a lot more. Like the other day he took himself – I was late taking him to the gym for an induction – and he just went straight in there and told the induction person all about himself and just did it all without me

> being there. He just didn't need me there. And before that I don't think he would have done that. I think he would have found that really hard.

In Simon's view the improvement in social skills that he has seen in Colin are reflected in Colin's increased communication and "chattiness":

> Now you'll find out more things that he's done in the past. What he wouldn't have said, maybe, at the time. I think it's really interesting the teams he's played for … I don't think when you met him you would have found that out … (Now) I find him really open. Really a pleasure to talk to … He's really bubbly and I think that's really come out of him.

Inseparable from Colin's social and communication skills, in Simon's view, are his improvements in confidence. Colin being able to successfully manage his gym induction unaccompanied is one illustration of the inter-relatedness of confidence and social skills. Lynn felt that it is not only within sport and exercise that Colin had changed in this regard:

> We started with trying to sort out his bills and managing finances. And he was really nervous about phoning people up. I'd ring them up and then say oh 'Mr Green is here, can I hand you over to him?'... And that's worked really, really well and now he's like phoning up the landlord himself and this and that … I think that in itself gave him the confidence that he was able to do things.

Colin himself is not unaware of the importance social relations, and social support, hold for the quality of his day-to-day life. Throughout all the stages of his illness, it seems, Colin has benefited from positive social relationships – and often these relationships were formed through sport and exercise participation. Colin offered a simple summary:

> Family as well, friends, they supported me since I was ill really … used to come round, make sure I was up or I went out with them they asked how I was. You know just good friends really.

On my own part

Also of critical importance to his well-being, in Lynn's opinion, is the issue of Colin taking control of aspects of his life. Lynn compared Colin to others she has worked with and observed:

> I think what's different about him is that he, more or less, *he* started doing the football. And, more or less, most of the changes have been of his own volition. *He's* chosen to do those things rather than me saying, 'come on, I'll pick you up in the car, I'll take you there, I'll

> sort it all out for you'. But he's actually run with the ball himself. That would be the most dramatic thing I think – that he's started to take control of his own life.

Simon concurred with this view:

> It's like when he went to the gym - he can just go in and do it. Maybe you've just got to plant that seed into him. But it was his idea, he wanted to come and join the gym, and that was really impressive.

Although Colin's ability to take control and responsibility for his life is clearly an important feature of his positive progress, it is difficult to assess whether it has been a *cause* or a *result* of his successful return to sport and activity. To investigate this question it is necessary to consider some of Colin's own remarks which suggest the presence of a degree of personal control or autonomy in his sport participation before he became unwell. Colin described his childhood football participation: "I used to play football outside in the house gardens *on my own* – just kicking a ball … when I was about seven or eight." Similarly, even as an adult who played in the team environment of an amateur football club: "I used to train over the park *on my own*."

These remarks are ambiguous in terms of interpretation: they may be considered to be indicative of a self-sufficient, autonomous individual or they may instead portray a loner, a disconnected individual.

Colin's comments are perhaps more revealing, however, in the light of the undercurrents of his description of the acute phase of his illness immediately prior to hospitalisation:

> The consultant that came round … to the house where I used to live and saw me a couple of times. Come to my room – just say *we're checking you out* … and she said you gotta go to Brentree – *we're taking you in*. And that was it you know. It just went from there really – I saw these other doctors and *they were checking up on me*.

The tone of the italicised phrases suggest a feeling that, at the time of hospitalisation, decisions were being made for Colin – things were *being done to him* instead of him *doing things himself*. This feeling contrasts sharply with his more autonomous description of how he began to socially interact while in hospital:

> I started talking and got out of my shell … It was important to talk to people – communicate with people. So all that was *on my own part* really … *I done it myself* - started to talk to people *myself*.

It is perhaps the case that Colin was a person who, before becoming unwell, took a fair degree of control over his life – that he displayed an amount of autonomy in planning and choosing his activities. During the most serious times of his illness control was, perhaps unavoidably, handed over to mental health professionals as periods of hospitalisation and various forms of treatment were necessary to protect his safety and promote his mental health. However, as the comment above suggests, even during these times Colin, with hindsight at least, takes some degree of responsibility for his improved health and well-being by attributing some of the positive changes to his own initiatives.

There is a parallel case, however, that the positive slant of attributing success to his own personal initiatives may have been retrospectively adopted by Colin to explain his improved health. Indeed, in subsequent treatment mental health professionals may well have encouraged this positive attribution of success for the purposes of long-term therapeutic benefit. Some support for this argument is offered by both Lynn and Simon's comments quoted earlier indicating that Colin was doing very little in terms of taking control or responsibility for his life when he first joined the football group eighteen months previously. At the time of interview, this situation had improved dramatically as Colin was increasingly assuming responsibility for structuring and organising his day. Simon felt that since starting football Colin had improved in terms of "structuring things – structuring his day … he's here on time and coming in and knows what he's doing." Lynn also referred several times to Colin's improved time structuring ability and motivation linking both to his involvement with a larger circle of friends:

> There's been a much greater degree of motivation to do things and to have a structured week. When I first met him he talked about being lonely and bored in the house and it felt like I was sort of almost befriending him. Taking him to shops, sorting out his flat, it was kind of like that. But much more recently he's sort of made friends within that group of people and that's been a big change and that's given him his own impetus really.

Since the time Colin first began to join the exercise groups at Redview Lane, both Lynn and Simon's remarks clearly indicate that Colin's personal control and responsibility has, at the least, improved *alongside* his increased sport and activity participation. Whether this improvement has *caused* or *resulted from* physical activity participation is a difficult call to make.

Its never tomorrow – you've got to start today

The web of psychological factors that have been involved in Colin's progress towards recovery also appears to include Colin's huge enthusiasm for football and his recently increased enthusiasm for life in general. While discussing the motivational difficulties often faced when encouraging a person with a severe and enduring mental health problem into any new activity, Lynn suggested that Colin was unusual: "Whereas him, I mean, he's just gone with it. Every time there's just something new, swimming or badminton, he's just run with it." Once again, it is difficult to separate the effects of new-found enthusiasm from time structuring, personal control, confidence and motivation when attempting to understand what changes have allowed Colin to, for example, attend gym inductions alone. In Lynn's view:

> It's very difficult to audit isn't it because you can't say one particular thing. It feels like in the main the sports side of it has aided him most in terms of motivation. That side of it – feeling a motivation like 'I can do this' - and self-esteem and all that sort of get up and go sort of stuff I'd say.

In relation to Colin's increased sport and activity participation over the preceding eighteen months Lynn raised a further important point:

> The other main thing I think he's got out of it is that feeling that actually he could do something with his life. That actually he hasn't finished work, retired on the grounds of ill-health and he's never going to work again. When he got involved in the green gym programme[14] he could start to see that doing volunteer work was something that he could quite easily do. I think that's opening up the bounds of possibilities for doing something, even working towards paid work in the end. And he has mentioned that to me once. So I think that's a big change. Just thinking that he's got something – that his life hasn't ended. You know, he's got the illness, it's all over.

The scale of this change in Colin should not be underestimated – particularly considering that almost his first words to Lynn only eighteen months previously were 'I don't want to even consider going back to work'. The notion of Colin actually *doing* things – rather than *not* doing anything or even *being done to* – is also reflected in the key word in context analysis reported in appendix 6 Table 6.3c. Colin's own descriptions of the acute phases of his illness hint at a feeling (as previously discussed)

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[14] A council run activity group for people with mental health problems that combined environmental education and activity such as forestry work with a physical activity component.

of passivity and inactivity as treatment was *done to him*. In contrast, when talking about his moves towards recovery, his descriptions focused more on him *doing* things and *going* places himself.

This improved outlook suggests a more optimistic view of the future and a greater enthusiasm for life in general which may be an important factor in Colin's chances of making a full recovery and returning to independent living. I asked Lynn for her view about Colin's chances of making a full recovery and returning to an independent lifestyle:

> The last CPA we had he described himself as 90% better. Obviously I don't know him from when he was at school but his mum confirmed that he has not been as well for years ... And I – the doctors wouldn't agree with me – but I feel fairly confident that he could come off medication and he could certainly be doing some volunteer work or something meaningful with his life within a year or so. I'd say in five years I would expect him to be not having any contact with the services. That's what I would hope for. He's seems such a, a person with such a potential to recover. All the signs to me, I know the doctors don't agree with me because he was so ill ... but Colin has done it himself ... He thinks he's better – that's the main thing.

Although every indication suggests that medication had been important for Colin's health and well-being in the past, particularly during the acute stages of his illness, Lynn gave the impression that medication was perhaps not so important now:

> Well, the medication's been cut dramatically. He's been out of hospital 10 years – it's been a long time since he's been in hospital. Most of our people would find a maintenance dose of medication and that would be it – probably for life. He's – in the last eighteen months – he's stopped his anti-depressant completely and, not entirely supported by doctors, he's not taking his rispiridone if he drinks alcohol. So therefore about two or three times a week he's not taking his medication and he hasn't found any difference whatsoever. My long term goal for him would be for him to have a trial with no medication at all. And you know it may be that he never gets any symptoms again. ... He feels like someone who possibly may have had that sort of one-off psychotic episode, maybe psychotic depression of some sort, and that he can, he is recovering from it.

The magnitude of the change in Colin that has brought such improvements in his mental health and well-being, once again, should not be underestimated. Colin was for a period of several years, around the time of his acute phases, extremely unwell. As Lynn's comments regarding the doctors' caution suggest, the road to recovery from this

level of mental disorder is a difficult one. It seems likely that a combination of circumstances are necessary to bring about this level of change, but that sport and physical activity was one crucially important factor for Colin. I asked Colin what he felt were the important factors in his recovery:

> Well just the enthusiasm really. That's what has changed my life really. Well apart from the music I would say. If I didn't play football or have any music I don't think I'd be here today. I think it's kept me going like.

Lynn identified two factors which she felt were central to Colin's recent improvements in well-being:

> I would say cutting down and stopping medication definitely ... that's going to help with his weight problem and things like that. I think getting more involved in activities of his own volition. Choosing what he wants to be involved in rather than being asked. Just sort of changing the locus of control really. Somebody (else) has been in charge for such a long time – him saying 'right, I want to do these things'. I think that would be the main things that I think have made changes, yeah. (Pause) I don't think it's the sport in itself – I think it's all the things that (pause) ... for him, that is the best thing that it could have been. For some people I see it would be starting a volunteer job, for example, that gives them that feeling. But it's sport for him that's given him the buzz.

Lynn's comments deserve development on two levels. First, her mention of cutting down medication is clearly a perception of changes that were important to Colin's more recent progress. On the basis of both Colin's own story and the opinions expressed in his medical records there is little doubt that medication provided some important benefits during the early acute phases of Colin's illness. Second, Lynn's comments indicate the key importance she attaches to the notion of taking control – of becoming autonomous – as a factor in Colin's recovery. Even having expressed her opinion that not all those with a comparable mental health problem would necessarily experience the same benefits of sport and activity seen in Colin, Lynn was openly confident that, in Colin's case, sport and physical activity *was* hugely important.

Colin's view of sport and exercise, while positive, was not entirely rosy. Despite the importance of football in his life he acknowledged that he would not be able to play for ever:

> It'll have to come to a halt when I get older – football-wise and that. Have to keep playing cricket and walking and just slow it down like – don't do so much – in case I get bad again and fall ill again.

I asked Colin to elaborate on how physical activity might be involved with him becoming unwell. He described the cause of his initial illness: "I think it was just stress – I just done too much. I was riding a bike then, I was working, and I was playing football and it just hit me for six." One interpretation of these brief comments is that, perhaps, Colin had become excessively involved in sport and physical activity and that this was a factor which contributed to his initial problems. A second interpretation is that, in the case of such a serious mental health problem, *all* aspects of Colin's life (as he suggests, work, general stress as well as exercise) were implicated in onset. I sought clarification by asking Lynn for her opinion of whether any aspects of his sport participation had been detrimental to Colin's well-being or had actually created problems:

> No, certainly not. Quite the contrary. I'd say exercise has helped him cope with stresses and things. And he's got the backup of friends. He'll turn up at the football – cause he's had some financial difficulties that are probably the biggest stress that he's had (recently) – and chatting with the lads at the football about what to do about his credit card and things like that has helped him. So I'd say quite the contrary really. That, you know, he's not a person who would do relaxation techniques - he's the sort of person that would get relaxation from that (sport activity). So, no, definitely not.

Looking to the future – and Colin's chances of making a full recovery – sport and physical activity seem to be an intrinsic component of Colin's plans. He commented: "Until I get an injury or something I don't want to stop really – there's always cricket or something you can play when you get older." I asked Colin how he saw his future:

> I think its looking quite bright … I'm optimistic. 'Cause you don't know what's gonna happen the day after do you? I could have a heart attack or something – anybody can – can't predict the day after can you? It's why people say you gotta make the most of the day you're doing now. You know, it's never tomorrow and you just gotta start today.

Conclusions

In terms of an overall view, the comments of both Lynn and Simon, as well as Colin himself, suggest that participation in sport and physical activity during the preceding eighteen months had provided huge benefits for Colin. Several specific benefits seem to have arisen for Colin as a direct result of him re-engaging in sport and

activity. First, playing football has been one way of Colin making a return to the person he was before he became unwell. In other words, Colin has returned to his previously held identity as a 'footballer' or 'sportsperson' (Crisp, 1996; Sherrill, 1997). Second, sport and exercise provides an avenue for Colin to display his talent and ability. This, perhaps, helps to enhance his sense of self as others to see him, and respond to him, as a competent and successful individual (Fox, 1997). Third, several broad social benefits are intertwined with Colin's sport and activity participation. These include the support of friends he has made while playing group activities and the increased opportunity for communication and self-expression through these relationships. These social ties are likely to be important in terms of psychological well-being and mental health (Baumeister & Leary, 1995; Deci and Ryan, 1995).

Fourth, a conglomeration of inter-related psychological improvements including increased confidence, enthusiasm, personal control, optimism, and ambition were noted in Colin over the period that he has been physically active. These benefits have previously been suggested as potentially important psychosocial outcomes of exercise (e.g. Faulkner & Biddle, 1999; Fox, 2000a). Finally, and perhaps significantly, Colin has returned to *doing things*. Colin's participation in many forms of activity contrasts with the acute phases of his illness when he *did* very little. In his current state he is a deliberate actor in his own life whereas previously he was more a passive recipient of healthcare. The notion of *doing things* can be seen to combine several of the previous themes as the need for autonomy, competence, and social relations are met through Colin's physical activity participation and lead to improved day-to-day mental well-being (Reis et al., 2000).

From the perspective of Colin making a recovery from his mental illness – a task he has already begun but still has further to go – Lynn identified two critical factors. First, reducing antipsychotic medication was seen by Lynn as both a necessary 'normalising' strategy to return to a healthy way of life and, importantly, to allow Colin to more effectively manage his weight. Second, Colin's increasing autonomy – choosing what activities he takes part in and how he wants to live – was observed as an important change during the preceding eighteen months, and a factor that pointed the way towards full recovery. In Colin's case, sport and activity participation, along with its accompanying experiences, has been the primary way personal control skills and autonomy have been both acquired and exercised.

5.4 ENGAGED IN THE GAME

Shaun was one of the first people I met when I started working at Brentree hospital about three years ago. He was on a secure unit, wouldn't say boo to a goose. Even in that secure unit he would keep himself to himself, wouldn't say anything. But when I asked if he wanted a game of football he'd go out and play a game. That was the only way he expressed himself. That was the only thing he would do to interact with anyone. He wouldn't say too much, or anything at all, head down like this, looking at the ground and avoiding eye contact; just kicking a ball, doing his keep-ups.

We always try to do activities on the wards you see, whatever form it may take, because the key is getting people to socialise – to engage them at a very low level and gradually build it up. And all Shaun would go for is the football. He wouldn't speak to anyone, or he might mutter something then it would be head down again. Usually, with the clients we had in there, not many would join in anyway so most of the time the game was just between the two of us, just knocking the ball around. I think throughout his time in hospital football was the only thing he really enjoyed – probably the only thing he actually *did*!

I think with Shaun, he's a fabulous player, he's played a load of football in the past and because he's now becoming well – getting better – he's getting back into that. What's really spurred him on in the last few months or so is that getting our team into the local football league was *his* idea. On one session, when we were driving out, he just said, "why don't we get in a five-a-side league?" It was good that he said it, but I don't think he had the insight of how to do that or how much work was involved in doing it. But, through the OT's, he's gone out and got a health promotion grant to pay for the kit and so on. He needed a lot of prompting to do that – like hitting your head on a brick wall sometimes – but he got there! I think that's helped a lot. He seems more positive in himself. It's given him something to think about and something to get quite excited about to some extent.

Shaun wrote about football a little while back; he said, "When I hear City on the radio or put on those shorts, I have a feeling that over-rides all the bad thoughts". He told me that he just thinks other things – he doesn't really think about the bad things that he might think about if he wasn't doing something. Although that can happen with other things, because sport is such an active thing, he said it tends to have that effect on him. Especially with the football, he's totally enthusiastic, more confident, talks to people,

and he's really focussed on the football. When he's on the pitch he's got more confidence 'cause he knows he plays good – he's a different person.

I'm getting the feeling at the moment that it's been his main thing in recovering – the football. But to get him there I think it was a combination of everybody, like the occupational stuff, the structural things. Getting him to socialise was a key when I first met him and now he's been invited to join another team and most of them he knows quite well. Although he's probably one of the quieter ones, he gets on with them, has a bit of a laugh and joke. One week two of his mates came to football 'cause we were short of players. And you could tell that he was a lot more confident around his mates. He was very up and ready and getting people going, sort of, "come on!", "are you up for this?" – everything went up another notch.

I'm sure it's important to him, his football, and that he achieves at it. If it didn't happen I think he would be devastated – very disappointed. Alright, he doesn't have a lot of insight of how long it takes to do it and all that but it's his goal and he wants to achieve it – it's a big thing for him.

Withdrawn, restless, and distracted

According to his medical records Shaun grew up in a strong and happy family with no development problems or unusual childhood health issues. Shaun's progress through school and on to college for A-levels was uneventful; he got along fine although he was always something of a loner. Throughout his teenage years, Shaun was an enthusiastic footballer initially taking part in football games during lunch breaks at school before moving on to playing competitive amateur football for several years. This normal lifestyle was about to change however – within a year of taking his A-level exams Shaun suffered a severe psychotic breakdown.

Five years later, I formed my first impressions of Shaun through participation in the Redview Lane five-a-side group. Shaun, a young man, was an active member of the group who seemed physically fit and one of the better, more experienced footballers. It struck me that he had a functional interest in football; he was enthusiastic and active yet played in a fairly casual way without taking his tracksuit off. Shaun didn't give me the impression of being a big 'football supporter type' in that he didn't wear the club kit of a well-known team nor engage in any of the overt celebratory behaviours when he scored a goal. In the time period between the onset of his mental health problems and the time I first came to know Shaun, he experienced, according to his medical records, a

"severe and underlying" mental illness that was eventually diagnosed as chronic schizophrenia. Throughout this time period, the severity of Shaun's mental health fluctuated considerably as he experienced a complex series of remissions and relapses. Key points in this process are summarised in Table 6.4a in appendix 6.

The initial onset of Shaun's mental health problems occurred, when he was in his late teenage years, over a period of four months during which time he became increasingly withdrawn, restless, and distracted. Shaun was referred by his GP to psychiatric services where he was assigned to a community psychiatric nurse and treated with anti-psychotic medication[15]. According to his family the medication initially seemed to be having a positive effect on the more debilitating symptoms of his illness and reduced the occurrence of his negative thoughts. Notes at this time suggest that the combination of medication and his friends returning home from university for the summer seemed to precipitate an improvement in Shaun's mental health. However, Shaun was not happy with his medication and his compliance with the prescription soon became inconsistent.

Over the next twelve months Shaun's records document a period characterised by intermittent medication compliance and engagement with cognitive and family therapy, some casual employment, excessive sleeping, and general inactivity. In short, although Shaun was described as "calmer" and some improvements in his mental health were noted, the negative symptoms of his illness continued to prevent a healthy and active lifestyle. Shaun was far from being well.

The unacceptable side-effects of Shaun's medication resulted in a short-lived change in prescription[16]. Although Shaun was at this time diagnosed with paranoid schizophrenia, he took a treatment break for several weeks during which time he stopped taking medication completely. Approximately three months later a significant deterioration in Shaun's mental health was noted and he was admitted to an in-patient ward at Brentree hospital. A psychiatric assessment at this time recorded moderate to

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[15] Olanzapine – an atypical anti-psychotic medication. Known side-effects of atypical anti-psychotics include weight gain, dizziness, postural hypotension (slouching), Parkinsonian symptoms (e.g., tremor), dystonia (abnormal face and body movements), akathisia (restlessness), and occasionally tardive dyskinesia (rhythmic involuntary movements of tongue, face, and jaw). Additional side-effects of olanzapine may include drowsiness, increased appetite, oedema (excessive accumulation of fluid in body tissues), rash, hepatitis, hyperglycaemia, and blood disorders (BNF 44, 2002).

[16] Risperidone – an alternative atypical anti-psychotic medication. Additional known side-effects may include insomnia, agitation, anxiety, headache, drowsiness, impaired concentration, fatigue, blurred vision, constipation, nausea, vomiting, indigestion, abdominal pain, sexual dysfunction, urinary incontinence, elevated heart rate, hypertension, rash, and blood disorders (BNF 44, 2002).

severe levels of guilt, grandiosity, unusual thoughts, and suspiciousness and moderate levels of anxiety, depressed mood, retardation, emotional withdrawal, and tension; Shaun was described as "shy, guarded, poor eye contact, and pre-occupied."

Simon's description of Shaun during his time at Brentree hospital brings some perspective to the magnitude of Shaun's problems:

> Shaun was one of the first people I met when I started at Brentree hospital about three years ago. He was on a secure unit, wouldn't say boo to a goose. Even in that secure unit he would keep himself to himself, wouldn't say anything. But when I asked if he wanted a game of football he'd go out and play a game. That was the only way he expressed himself. That was the only thing he would do to interact with anyone. He wouldn't say too much, or anything at all, head down like this *(mimes looking at the ground and avoiding eye contact)* … just kicking a ball, doing his keep-ups.

Even during this acute phase of chronic schizophrenia, when interested in little else, Simon's comments suggest that Shaun retained some enthusiasm for football:

> We always try to do activities on the actual wards – and all he would go for is the footie …I think throughout, football was what he really enjoyed … all the time he was in there, the only way he expressed himself.

Shaun resumed his original anti-psychotic medication[1] while in hospital before being referred to Redview Lane and transferred to a residential in-patient ward.

At the time Shaun began at Redview Lane he was apparently getting up late each day and doing very little in the way of activity. Although he described his mood as "fine", his family felt that his mood was unusually "flat" and that he was becoming increasingly withdrawn and distanced from them. At times he felt his medication was helpful but at other times he felt it was not and he continued to experiment with both reducing and stopping his medication as well as independently trying alternative therapies, diets and reading in an effort to, in his words, "sort my head out".

Although Shaun was scheduled to attend Redview Lane five days per week, his attendance was initially recorded as inconsistent. When he did attend, Shaun participated in activities at the centre but was noted to be nervous and stressed, often pacing around outside for some time before entering the centre. While at Redview Lane, Shaun was scheduled a range of vocational and creative activities as well as encouraged to take part in some physical activity sessions. Initially, only "sporadic attendance" at a few gym sessions and volleyball groups is recorded along with a description of him as "very quiet, responds only when spoken to."

According to his records it was about three months later that Shaun began to show some signs of improvement. Shaun's attendance at Redview Lane increased, he was reliably self-medicating, and had begun to more regularly attend occupational and physical activity groups both within and outside the centre. Catherine, physiotherapist and gym session leader at this time, recorded that Shaun "needed encouragement to attend but then completed the programme well." Although his participation in the walking and table-tennis groups was still inconsistent, he was by now playing football every week and Simon recorded that "Shaun continues to gain confidence and positive assertiveness whilst playing."

A further medication change[17] and the commencement of fortnightly meetings with a clinical psychologist are documented at the same time as continuing improvements in Shaun's general well-being and the stabilisation of his mental health. By the end of this year, eighteen months before I interviewed him, Shaun's attendance at the centre was recorded as 100% and he was continuing weekly sessions with the clinical psychologist. The first reference to physical activity by the psychologist was made in Shaun's records at this time. Although Shaun was commonly sleepy during their sessions, the psychologist noted that he'd been considerably less sleepy recently. When this was pointed out to Shaun, he replied that he felt it was a result of the running he'd just started.

Part of the programme

Given the magnitude of Shaun's mental health problems, the process of starting, or resuming, physical activity is unlikely to have been an easy one (Childs & Griffiths, 2003). Shaun's participation in football before becoming unwell and his participation while in hospital go some way towards explaining Shaun's exercise adoption in terms of it being a return to an important element of his previous self. Yet this explanation sheds no light on the actual *process* of exercise adoption – what factors paved the way for Shaun's return to exercise? Even for Shaun, a keen footballer who had stopped playing regularly, some external factors were important at this stage:

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[17] Clozapine – another atypical anti-psychotic medication. In addition to general side-effects, clozapine can result in potentially fatal loss of white blood cells, fever, drowsiness, anxiety, agitation, confusion, fatigue, blurred vision, dry mouth, constipation, nausea, vomiting, problems with swallowing, headache, dizziness, hyper-salivation, urinary incontinence and retention, impaired temperature regulation, hepatitis, jaundice, and cardiac problems (BNF 44, 2002).

> I sort of didn't do it (football) for a while. But when I first came to Redview Lane I did go to play on a Friday but I didn't have in mind that we were going to play in a league or I was gonna play in an eleven-a-side team or anything. It was just something – part of the programme that Sarah's got here.

The first stage of Shaun's return to football was, it seems, a result of football being on the weekly schedule – it was something that was available to Shaun and, moreover, he was *encouraged* to join in. This encouragement was important because, in Shaun's words, "I think at the time I wasn't that keen to do anything really."

Sarah described the process of starting exercise:

> Well what we do with everybody who comes is I just sort of go and have a chat with them … and see if they want to join in any sports groups or use the exercise equipment here …With everybody, when they first come, on the whole, they can manage very, very little. Physically but also mentally I think they, you've just got to go very gently with them and then, as they become more confident and physically better, then they go on and do more. Its engaging them, but that is the purpose of this unit with a lot of people. To engage them in anything in the work areas, in social contact, because a lot of them when they're ill their relationships and interacting with other people goes out the window as well.

Simon agreed that social factors were also a pre-requisite for engaging Shaun: "It was a key when I first met him – getting him to socialise" because "he wouldn't speak to no-one – he might mutter something, (then) head down again." It seems likely that social engagement was the first step in Shaun's return to playing football; it provided a foundation for his increasing participation. In Simon, Shaun had someone with whom he could talk about something which he valued – something that was important in his life – and in football he had an activity in which he had the interest and confidence to interact with others.

Social issues were also significant in encouraging Shaun's return to football, and physical activity, in two other ways. First, the development and increase in Shaun's physical activity participation was assisted by a chance encounter which resulted in Shaun joining a community football team:

> Someone that used to come here (Redview Lane) spoke to me about this ability team. And he, he said about it to me and I spoke to my mum, and my mum said she knows one of the people who runs it … so she sort of phoned him up for me and said, err, can I go to the training.

In the process of joining a new club, both the initial idea as well as the responsibility for arranging the first session came from others; another Redview Lane client and Shaun's mother. Second, Simon's account of a more recent football session highlights the role of others in encouraging Shaun's *continued* football participation and his return to his previous levels of involvement and performance:

> Two of his mates came to football 'cause we were short of players. And you could tell that he was, there was a lot of confidence around his mates. They came out with the team sort of thing and he was very up and ready and getting people going, sort of, "come on!", you know, "are you up for this?" and all that. With his mates. I think they were his school mates – he'd known them for a long time... Even though he had it there (before) it went up another notch.

Although these social issues may seem modest in the context of "normal" life, in the context of Shaun's almost complete lack of social interaction described in his medical notes they were potentially significant. When an individual has such limited interest in doing *anything*, as Shaun himself described, support and intervention from others is perhaps the only possible impetus for starting a new activity. As such, Shaun's interactions with Simon and other exercisers at Redview Lane and outside, the organisational support from his mother, and the football games with old friends can be seen as highly relevant to Shaun's increasing participation.

One year after Shaun's return to regular physical activity, positive progress was still continuing; he was recorded as being more assertive and increasingly able to motivate himself. By this time Shaun had a busy activity schedule that included occupational activity at Redview Lane, one day a week of creative arts, a college course and regular recorded football participation (between one and three times per week). However, Shaun was still suffering from chronic schizophrenia and he continued to struggle with decision making and concentration skills, often distracting himself from his thoughts by listening to music with headphones. This description characterised Shaun at the time he took part in the research project. Although he had improved sufficiently to be spending several days per week on activities in the community, Shaun continued to attend Redview Lane for the football group, an occupational group, and social continuity.

Focussed on football

Simon described some major changes in Shaun over the time they had known one another: "he's totally enthusiastic, more confident, chatty, talks to people and I know he's really focussed on football." Although Simon lists here motivational, confidence, and social improvements, his mention of Shaun's *focus* on football is I think particularly important in understanding his physical activity participation. Simon's reflection "at the moment I'm getting the feeling it's been his main thing, the football" and Sarah's feeling that "the football … has actually given him a focus" both help to confirm the importance that this particular sport holds for Shaun.

Shaun's comments mirror Simon's view that football is indeed central to both his physical activity and his life in general; his response to my first question of what kinds of physical activity he was currently doing is revealing: "I'm not actually doing that much at the moment cause the football season, eleven-a-side season's finished." This simple remark suggests that in addition to football being Shaun's activity of choice it is also a major reason behind his participation in other forms of exercise; that he primarily engages in physical activity *for* the sake of his football. That is, I was getting a feeling that Shaun exercises more for football than for himself. In order to better understand the place of football in Shaun's life it is therefore necessary to firstly identify what it is about football that Shaun finds valuable.

As football was something Shaun had been involved in since he was at school I wondered whether his attraction to the game lay in a strong track record – his *ability* in other words. Shaun confirmed that nowadays not all his football participation revolves around Redview Lane but that a year ago he had started playing for a local "ability" team affiliated to the city's national league side. This team is not a casual kick-about affair; according to Shaun they travel around the country playing other ability teams linked to some of the top professional clubs in England. Although Shaun had only been playing for a short time it seems he'd become an important member of the team and was pleased with his progress: "I actually won the award for manager's player of the year … I was quite chuffed." The quality of Shaun's football skills were also appreciated by Simon who, in the context of the Redview Lane five-a-side team, described Shaun as "a fabulous player".

Shaun, it seemed, was no stranger to football success and recognition which extended back to before he became unwell when he "played also for the local first team for about five or six years". It appears that Shaun is the kind of person who expects high

standards of himself when it comes to sport: "I used to play a bit of tennis but I wasn't any good ... I also played a bit of cricket, well not a lot, I wouldn't say I'm a good cricketer or anything." Being that these remarks are purposeful self-descriptions of his own ability, it may be that instead of providing an accurate portrayal of his ability views they are merely a sign of modesty. Shaun's description of playground football during school lunch breaks perhaps provides a more objective perspective:

> Lunchtimes were quite enjoyable ... it would be all the guys that were good, the best ... put themselves sort of in a team together. It was quite enjoyable to play against them in a way.

I interpreted these comments to suggest that, in fact, Shaun didn't particularly consider himself to be a *good* footballer, and, perhaps more importantly, he didn't feel that others considered him as a good player. Was it a case that Shaun relished the challenge of taking on the good players because it provided an avenue for him to demonstrate his own ability?

Shaun spoke about his football training for the ability team:

> We don't do a lot. We're supposed to have training on a Wednesday and I used to turn up to it but it's just the reserve team that tends to turn up. So I didn't enjoy it that much at the time so I didn't keep going. None of the first team turned up. Might carry on 'cause I quite enjoy it. At the end of the day it's just not as enjoyable as it would be if there was a first team there.

On the basis of these comments it seems that the presence of the *good* players (the first team) at training is important to Shaun's continued participation, irrespective of whether or not he considers himself to be a *good* player. Shaun's focus on the importance of the first team being present hints at *association* with good players as being the key, rather than a concern over whether he is himself considered to be *good*. In this way when the first team players are present, and he trains with them, the training takes on an increased level of seriousness and importance. The importance of taking football seriously also emerged in Shaun's comments about a five-a-side tournament that he played in for the ability team but didn't enjoy:

> Because the (other) teams (were) not that good both ability teams got to the final. The chairman didn't want that so they had to withdraw one of the teams so another team played that wasn't an ability team. And yeah, then we lost the match on purpose *(small laugh)*. Just had to sort of pass it to them in front of the goal and stuff.

Being asked to "throw" a match in this way would understandably grate with a person who takes their football seriously and sees it as important. Shaun's description of how he feels when he's playing a match also makes the game sound like a serious affair. His description sounds more like the words a professional footballer might use than a leisure player:

> Sometimes even if you're winning it's a bit of a struggle you know. Sort of keep it going, the match, and to not concede goals and things can be sort of quite intense in a way.

It may be that, more than wishing to be thought of as a good player, Shaun wishes to be considered (and to consider himself) as a *serious* footballer who is committed to the game rather than playing as a hobby. In this regard, Shaun was quite self-deprecating and casual when talking about the football training he does on his own, judging it against lofty criteria:

> My parents have got quite a big garden so I kick a ball about there ... When I'm round there I'd say every day ... Certainly, its not training like a professional would do ... I'd love to be able to do that though for a job – to be able to play football for a living. Be able to train every day – be brilliant really.

I felt that a key aspect of football for Shaun is captured in this last remark. Football, for him, seems to be something in which he can set his sights high. It is an area in which he has previously achieved some degree of success, recognition, and satisfaction. At present, by virtue of his talent, football provides him with perhaps his best chance of achieving something a little extraordinary, of doing something that he values himself and that is respected by others. In the context of the debilitating effects of the illness he has experienced over the past three years or so, the chance of doing something to a high standard, which is meaningful both to himself and others, must be an exciting possibility.

One possible route to satisfying the aim of obtaining respect from others and *doing well* is to focus on the competitive aspect of sport – to *earn* respect by playing in the best teams and beating other sides. There is some suggestion of this approach in Shaun's previous remarks about playing for the *first* team, and the *City* team, and that "cup games are more enjoyable to me". His choice of an example football experience which he found enjoyable is revealing:

> We did have another five-a-side thing that was a bit more competitive. It was a regional thing. Then I was gonna go on to a national thing. We didn't go out in that. We didn't win it, well we

didn't win every game, but we won the thing that got us to the national.

Similarly, he spoke of his disappointment in losing a recent game:

> I was so keen to win one game. If we'd got to the final of this cup competition we'd have been playing at Stamford Bridge. The final was at Stamford Bridge! So ... having won one game quite comfortably and almost having won another but the game had to be abandoned. So we had to play this team again - and we were beating them - and we lost to them. That was in the quarter finals. If we had beaten them we'd have gone on to get – I mean they were the top team – they were tipped to win it this year 'cause they won it the year before – we were beating them but the game had to be abandoned. We played them again and we lost 2-1. If we had beaten them we'd have got to the semi finals and possibly the finals at Stamford Bridge ... I mean, I wouldn't have minded if we'd have got there and lost. But to play somewhere like that would be brilliant you know.

Both of these remarks provide an insight into what Shaun considers important – the criteria by which he measures achievement. In these two examples although the positive (enjoyable) experience involved winning matches, the value he attached and the aspect which he seemed to emphasise as his goal was getting there rather than actually beating the other team. Winning was simply a vehicle to get him to the valued outcome. In other words, winning the match was not the end product for which he strived; instead the chance of playing at a higher level of competition (the nationals) or at a famous football ground (Stamford Bridge) seemed to be his focus. Therefore the reason that Shaun found these two experiences enjoyable and disappointing respectively is because they both led to an ultimate experience which he viewed as worthwhile: moving towards being a serious footballer.

Shaun talked about the importance of the competitive side of football which contributed some new insights:

> I quite enjoy football whether it's competitive or not. (But) if you haven't got that structure of playing you wouldn't sort of get round to playing that much would you? ... I don't know whether I am that competitive though when it comes to it. But I do enjoy it. Well, I like the way everyone can sort of wear the same kit and stuff.

To me, these are not the words of a 'competition junkie'. His expressions of uncertainty ("I *quite* enjoy", "I don't know...") do not suggest the character of a person who plays primarily for the thrill of winning. Shaun's admission that he might not participate so regularly without the "structure" of competitive events is, I think, revealing. This view

may be reconciled, again, with his need for the whole football environment or lifestyle to bring a sense of importance, purpose, or urgency to his physical activity. Shaun doubts that his motivation to play, train, and, perhaps, engage in physical activity, would continue without this *affiliation* (see Baumeister & Leary, 1995) – a common bond that is reflected in his comment about wearing the same kit. This was not the first time Shaun had mentioned about the importance of team kit; while talking about his role in the ability team, he had also drawn attention to this issue by pointing out "we wear the City kit".

It seemed to me that, more than a need for competition to demonstrate his football ability, it is the *organised* nature of his football participation and sense of *affiliation* that this brings which keeps Shaun participating in physical activity. Shaun's focus on wearing the team kit, playing against the good teams, visiting the top clubs, and training like a professional suggests that the *lifestyle* of being a footballer is more important to him than specific details such as winning or losing matches. This organisation, structure, and affiliation with the football world, between both teams and players, seems to bring a sense of meaning and purpose to his football which is the primary source of the benefits Shaun has experienced through physical activity participation.

My mind is occupied

As previously discussed, the majority of Shaun's physical activity experiences have depended on others – such as Simon, Sarah, and Shaun's family and friends – organising and promoting the sessions on Shaun's behalf. This was particularly the case whenever Shaun began a new activity group (such as joining the ability team). More recently, however, there have been some signs that Shaun is beginning to take more responsibility and control for new physical activity initiatives:

> I think what's really spurred him on in the last few months or so is the (five-a-side) league. It was his idea. On a session when we were driving out he said it'd be a good idea if we … got in a five-a-side league. It was good that he said it, but I don't think he had the insight of how to do that or how much work was involved in doing it. (But) through the OT's he's gone out and got a health promotion grant. He needed a lot of prompting to do that – but he got there!

The relatively long term project of applying for and administering the funding for the five-a-side team to take part in a local league served to keep Shaun involved with

football on a day-to-day basis. In other words, he began to have an involvement with football that extended to the time when he wasn't actually playing football. What's more, this involvement was something which was his idea, something which *he* decided to pursue. Shaun commented: "trying to organise this football league thing has been quite beneficial to me really. Something to think about and something I get quite excited about to some extent". In the more recent phases of Shaun's football participation it appears that he has taken an increasing amount of control and responsibility within the team – that he has seized the opportunity to, within a single sphere of life, act autonomously.

The importance of being busy – rather than unoccupied – is something Shaun raised while explaining the benefits he experiences through football:

> Just in a sense that my minds occupied. I think other things. I don't really think about bad things that I might think about if I wasn't doing something ... It can happen with other things but I think sport is such an active thing it tends to have that effect on me.

Shaun's description here of being mentally occupied and thinking *other* things suggests that perhaps football is simply a distraction from his mental health problems (e.g. Bahrke & Morgan, 1978). In the terms of this description it is reasonable to expect that other people might find a similar sense of distraction through taking part in *any* engaging activity. For Shaun, perhaps because of his past sport involvement, football is merely the vehicle which provides a distraction from his mental health problems.

However, Shaun's behaviours and comments suggest that football, for him, is something more: "I think it (football) has helped me a lot – I feel a lot more positive in myself." The comments of Simon, Sarah, and Shaun, in addition to my own observations, left me with a feeling that playing, organising, and even talking about football seem to have a positive effect on Shaun that is more meaningful than mere distraction. Distraction would imply a *temporary change of focus away from the illness*; in Shaun's case it looks much more like a *lifelong focus towards football*. In other words, instead of football being an activity that allows Shaun to *avoid* addressing important lifestyle issues it is a lifestyle in itself – and a lifestyle that is valued by Shaun.

There may be some risks for Shaun in this approach as, in a sense, by thinking of himself as *a footballer* he may be living an illusory life; as Simon suggested, Shaun is not truly aware of the "reality" of living the life of a full-time, professional footballer

– it is a lifestyle he is unlikely to ever achieve. This risk is, however, far outweighed by the benefits Shaun has experienced through immersing himself in football. A positive sense of focus, reaching personally valued achievements, the establishment of good social relations and networks, and the beginnings of a sense of personal control have already emerged as *real* outcomes of Shaun's football involvement that sound more like a *positive* way of living than a risky, negative way of *forgetting* (i.e., being distracted from) his mental health problems.

Stupid questions

This was a difficult interview for both Shaun and me. Some of the difficulties are reflected in the following dialogue between Sarah and me which took place immediately following the interview, just a few moments after Shaun had left the room.

David: He did well didn't he?

Sarah: He did really well

David: I was really worried at the start

Sarah: Once he got going he relaxed a little bit more and smiled a bit but it was quite difficult to get out the information. And he has got a tendency to say "dunno" as an easy cop-out

David: Yeah. Thing is – because you have to go through that formality *(ethical consent etc.)* at the beginning it makes it seem really threatening I think …

Sarah: Oh that, yes. But it's brilliant that he came cause I was half thinking "is he going to ring up and cancel?" And he got here, he was here half an hour early, and he waited for you so he'd obviously made up his mind. But honestly, three years ago when he came he would pace the car park. He was up-down, up-down for ages. He would never ever make eye contact. He would always look *(mimes looking away)* like that whenever he spoke to you. I mean he's just, just a different person really.

On top of the difficulties of interviewing people with serious mental health problems that have previously been discussed, Shaun presented some additional issues that affect the interpretation of his comments. One of Shaun's longstanding problems, identified by both Sarah and Simon and recorded in his medical notes, is interpersonal communication. The descriptions of shyness, quietness, and poor eye-contact are mild

terms that only hint at a level of difficulties that would, at times, leave him pacing outside for an hour or more before entering Redview Lane and prevent him eating meals with other people. In addition to this, it was only recently that Shaun's improvements had begun to occur – in Sarah's view, just six months earlier Shaun would have been too unwell to even *participate* in the interview. The cumulative result of these factors was that Shaun was unsure about taking part in the interview. It took a measure of courage for Shaun to make the decision to take part and see through the interview that, in itself, was a significant landmark in his clinical progress.

One implication of these issues was that Shaun was tense and on edge, particularly at the start of the interview; he sat, literally, on the edge of his seat and our conversation was littered with long pauses and moments of uncertainty. Sarah's presence probably eased the atmosphere in what could have easily been a very short interview. Despite attempting to ask "safe" questions that avoided probing difficult, painful, or potentially problematic issues, on several occasions I felt that I'd perhaps asked too much. As Sarah made clear, the interview was a major challenge for Shaun and, if I was to learn from Shaun's experiences, part of my task was to assist him in *getting through* the interview by making the process as unthreatening (to him) as possible. By the end of the interview, although the atmosphere was far from carefree, Shaun had certainly relaxed. There was some laughter, Shaun said he found the whole experience bearable, and he was interested to know whether what he'd said was useful – and he has spoken to me since!

In some way Shaun's responses made me feel like, for parts of the interview, I was asking stupid questions. Somehow his answers often seemed to make so much sense and be so obvious that I felt I needn't have asked the question! The preceding section is presented, for the most part, in the traditional "realist" fashion (see Sparkes, 2002; Van Maanen, 1988) as I discuss Shaun's responses in the context of how they *made sense to me*. In short, I came to see Shaun – and write about Shaun – as a young man for whom football is sufficiently important that it has almost become a reason to recover from schizophrenia; that his ideal would be to play professionally and, consequently, he values and enjoys any experiences that compare to those of a top footballer. Yet I am, at the same time, wary of making too much sense out of a complicated life that I am only beginning to understand.

The major complication I see at present is his level of expressed uncertainty. From 13½ pages of transcript I counted 30 times that Shaun used the expressions "I

don't know", "I'm not sure", "I might", "probably", "sort of", or "I think". Was he making the whole thing up? Should these expressions of doubt on his part lead me to doubt *everything* that he said? At the end of the day I took another perspective: Under the interview (for Shaun, perhaps interrogation) context described above this level of doubt is wholly understandable. Based on his sincerity as a person, the comments of mental health professionals who work with him, and the convincing nature of the stories he recounted I ended up thinking that these expressions of doubt were a natural response to a difficult situation. He was simply extremely nervous and uncertain about the interview process. (This issue is discussed further in chapter six, p.176.) Perhaps it really was the case that, for Shaun, my questions were stupid and he was the one trying to make sense of the situation.

Conclusions

Shaun has clearly made significant mental health improvements since the acute stages of his mental health problems and, according to mental health staff as well as Shaun's records, these improvements had been particularly marked over the previous year or so. The important question still remaining is *what caused these improvements*? According to Sarah:

> It's difficult to work out how much it's the actual exercise that's helping him and how much it's the (other) projects. But I mean this five-a-side thing is only very recent – the last six months or so. Before that it would have been the football and the league thing that probably helped him to move on.

Because Shaun experienced a holistic approach to tackling his mental health problems, it is entirely possible that any combination of his vocational, occupational, creative, therapeutic or social activities – on top of his participation in football and organisation of the five-a-side team – could have been responsible for his improvements. In the light of these co-occurring initiatives, there is little doubt that the process through which Shaun has progressed – and continues to progress – towards recovery is a complex one. The identification of a single causative factor is difficult if not impossible. It seems more likely that Shaun's current progress is a cumulative result of many factors.

Simon's comments support this conclusion:

> Well, I think at the moment I'm getting the feeling it's been his main thing – the football. But to get him there I think it was a combination of everybody, like the (*occupational*) stuff like that, the structural things.

In Simon's view, there were many important factors (e.g., occupational therapy, social factors, and psychological work) that acted as a *foundation* or *prerequisite* for Shaun's mental health improvement. These other aspects of treatment have, in a sense, equipped and enabled Shaun to benefit from football. Put another way, when Shaun was most seriously unwell, multi-faceted and intensive support was necessary to pave the way to football becoming "his main thing". In the light of Simon's comments here and his previous description of Shaun playing football even while hospitalised, it appears that although Shaun has also been dependent on social support and other interventions, football has remained a key constant in his life and has now, once again, become Shaun's "main thing" – his prevailing personal identity (see Crisp, 1996; Sherrill, 1997).

Shaun's comments and behaviour leave little doubt in my mind of the importance of football to his recent progress and, perhaps, his chances of a full recovery. During the interview, Shaun read out a poem that he'd written about football. Excerpts from this poem perhaps capture the importance of football in Shaun's life better than any interview remarks I can quote: "When I hear City on the radio or put on those shorts/I have a feeling that over-rides all the bad thoughts". Likewise, Shaun's choice of closing line in this poem is unambiguous: "I've been saved by the beautiful game." Although these words are simple, they are powerful and revealing. While confirming the importance of football to Shaun, this description also hints at the *process* by which football helps him deal with even the positive symptoms of schizophrenia. As noted by my research colleague, Shaun's words indicate a process by which *feelings* over-ride *thoughts*. In Shaun's case, it is *good* feelings concerning the sport he loves which over-ride *bad* thoughts accompanying his illness. That is, Shaun benefits psychologically from emotion over-riding cognition; heart over mind.

On the basis of Shaun's limited self-expression and explanation during interview it would be easy to academically disparage and belittle the level of meaning that football held for Shaun and, perhaps, for his chances of recovery. But communication is a two-way process; hence the blame for communication problems can never lie solely with one party. As I have noted already, part of the responsibility for our communication difficulties lies with *my* inability to provide Shaun with a more suitable atmosphere and style of interaction. Put another way, was I suitably equipped and prepared to *hear* in a way that fitted how Shaun could *speak*? In the context of having experienced a

psychotic breakdown and chronic schizophrenia along with an accompaniment of anxiety, depressed mood, retardation, emotional withdrawal, tension, guilt, grandiosity, unusual thoughts, and suspiciousness (reported in Shaun's medical records) perhaps, if Shaun tells us that he's been "saved by football", that should be enough.

CHAPTER SIX

CROSSING THIN ICE: A CONFESSIONAL TALE

> All too often, the political, personal, ethical, and messy realities of qualitative research are not formally documented. Rather, by the time the research is presented or written up, all the perils and pitfalls of the research experience have been omitted or smoothed out in a tidy report outlining what went right rather than what went wrong in the research endeavour. (Sparkes, 2002, p.70)

The preceding case reports were, for the most part, presented in the traditional style of writing favoured by the majority of qualitative researchers: the realist tale (Van Maanen, 1988). My primary reasons for choosing this style of representation were based on the desire to communicate a clear and thorough understanding of each participant's experiences to the reader. In so doing I capitalised on "the realist conventions (which) connect theory to data in a way that creates spaces for participant voices to be heard in a coherent text, and with specific points in mind" (Sparkes, 2002, p.55). As suggested by Sparkes (2002), I attempted to act as a "guide to scenes and social worlds that the reader may not have encountered." (p.55-56).

However, as the above quotation suggests, realist tales do not necessarily provide a *full* picture of all that we might learn from a piece of qualitative research. This argument, I feel, applies to the case studies I have conducted. Many twists and turns, trials and tribulations, occurred *en route* to me obtaining the data reported in the relatively problem-free context of the case reports. Within each case report I occasionally refer to problems in the research process when I felt these problems directly affect the understanding and interpretation of the individual case. However, in order to maintain a clear focus on the individual, as opposed to the research process, these references are minimal. This is not to say, however, that the problems I faced in conducting the research are either trivial or irrelevant.

Many methodological difficulties arise when conducting research of a psychological nature among people with severe mental health problems. I was aware of some of these potential problems prior to commencing the study – others I was forced to

recognise during the course of *doing* research. Often, it seemed, these problems arose as a direct result of the nature of serious mental disorder. Normally straightforward practices required by ethics committees such as providing information about the study, obtaining written consent, and conducting an interview in a private room became issues that had the real potential to cause participants significant distress and result in withdrawal from the study. One example is the standard practice of tape recording interviews for subsequent transcription. It was Sarah who initially raised this issue, warning me that, particularly for individuals with a history of paranoia, the operation of a tape recorder could be extremely threatening and frightening. In short, few everyday qualitative research procedures could be applied in an unthinking, problem-free manner with this population.

In order to focus attention on some of these general and specific issues relating to doing research with people who have a severe and enduring mental health problem I choose now to present my personal experiences of the research journey as a confessional tale (Van Maanen, 1988). According to Sparkes (2002), the confessional tale "foregrounds the voice and concerns of the researcher in a way that takes us behind the scenes of the 'cleaned up' methodological discussions so often provided in realist tales" (p.57). My aim here is to provide a fuller account of the realities and problems of conducting this study through discussion of my own research experiences. In doing this I follow, to a large degree, the recommendations of Sparkes (2002) in utilising a confessional style to "explicitly problematize and demystify fieldwork or participant observation by revealing what actually happened in the research process from start to finish. Therefore the details that matter in confessional tales are those that constitute the field experience of the author." (p. 58)

The following account focuses on six key problems or issues which arose during the course of conducting the research. The first two problems are general ones which, to a greater or lesser extent, applied to all the participants. The remaining problems are more specific and, for the purposes of illustration, are each discussed in relation to a specific participant. The section concludes with some comments regarding how these observations may influence future research in this area.

6.1 GENERAL ISSUES

The risk of "dredging up"

The experiences that precede, accompany, or follow a debilitating mental disorder such as schizophrenia are often highly sensitive and personal in nature. Through inspection of each participant's lengthy medical notes I came to see that, by any 'normal' criteria of human existence, some of these experiences must have been harrowing for both the individual as well as, perhaps, their family and friends. At best, talking about these experiences in an interview setting would be challenging for the participants, perhaps prompting emotional pain or discomfort. To revisit (or re-live) these adverse life experiences would, I felt, require a degree of courage on the part of the participant. At worst, I feared that excessive delving into the individual's past might, in some way, trigger a relapse – an adverse psychological reaction to the stress of reflecting on painful experiences. With awareness of this risk, I became aware of my potential 'therapeutic' relationship with each participant which had the potential to affect (positively or negatively) their current, sometimes precarious, level of mental health. This threat, I felt, was more real for those individuals who had only recently moved on from the most acute phase of their mental illness. In short, I was wary of *dredging up* past issues that might threaten recently achieved mental health gains.

For these reasons I felt that my primary goal in all the interviews was to create a positive interaction; to put participants at their ease, to reassure and support, so they might feel comfortable to talk about experiences on their own terms. Throughout all the interviews my priority was therefore to ensure that I avoided pressuring participants to discuss or answer questions in areas that they would prefer to not talk about. Clearly, this consideration implied that I did not *push*, or challenge, participants on potentially sensitive topics even when responses were somewhat inconsistent or not entirely clear.

There is a risk that my caution affects the 'quality', or depth, of the data obtained through inadequately tackling certain issues. There were times, noted in the case reports, where a lack of depth led me to question the validity or reliability of my interpretations. However, I felt that, on balance and considering the catastrophic (though unlikely) outcome of a relapse triggered through my research, this caution was justified. From an ethical point of view, I simply could not tolerate the risk of provoking further psychological problems in people who had already experienced so many. In my view, I

simply had no alternative but to look elsewhere for confirmation, triangulation, and crystallisation (Richardson, 2000) of my interpretations.

In the event, although some issues and problems *did* arise along the way (discussed in the specific problems sections which follow), I was ultimately aware of no adverse psychological effects among any of the participants. Although at times our discussions were emotionally demanding, for myself as well as the participants, this did not lead to any reported mental health problems for the participants. It is likely that Sarah's careful assessment of potential participants served to minimise this risk as she only approached those individuals who had achieved a degree of mental health stability – those who she felt could handle the interview process. In fact, by the end of their interviews all the participants were interested to know whether what they had said during interviews had been 'useful' – both in terms of the research project and for others with a mental health problem. Importantly, given the reciprocal nature of qualitative research, two of the four informed me that the interviews had been personally valuable experiences.

The second person

From my point of view, each interview was focussed completely on the experiences of that particular participant. All the questions I asked, in my mind at least, related directly to that individual's personal experience in order that I might learn about *them*. Despite this orientation, all the participants, to varying extents, displayed a tendency to switch from the first person ("I") to the second person ("you") when responding to certain questions or describing some phenomena. I felt that this switch was interesting and potentially meaningful in terms of interpretation as it seems to reflect a change in emphasis away from the *self* to an *other*. On reflection, I felt that several possible explanations might be valid.

First, a switch from the first to the second person may be an understandable attempt at self-protection when speaking frankly about difficult or painful events which creates some distance between the event and the individual. This distancing is present in Ben's description of a panic attack:

> You're just frightened and you don't know why ... You're just frightened to death for some reason and you don't know why. That's what it's like. And it lasts for, lasts about an hour something like that. Then it's gone again. And then you think, well you know, what

> was I worried about? Then ... all of a sudden you'll go out running again and it'll come back again.

Second, a change to the second person may imply a shift from talking about personal experiences to a more abstract level of theorising about other people. Once again, Ben seemed to use this ploy: "You think more when you're running. I think. You can work things out. Things that are bad don't seem that bad anyway. It makes you feel better in yourself." This explanation, I think, links to attempts by the participants to offer explanations which might help other people – something which all were keen to do. Colin's description of planning an exercise schedule reflects this notion of the participant *doing the generalising* to another with mental health problems (in his words, "a person"):

> When you do all these other sports its not so boring. I think its better for a person to do a different sport – see how you get on – than just sticking to the one game or else it gets boring otherwise see. So you go like into a rota, a pattern like.

Third, responses in the second person may allow participants to retain some distance between themselves and their remarks when they are not being entirely honest. Although it is conceivable that this distancing attempts to cover outright lies, I never felt a sense of deception during the interviews nor could I find any examples of this in the transcripts. It is more likely that participants instead occasionally regurgitate, perhaps unthinkingly, information they have received from others often as a component of their therapy. This possibility is suggested by Mark's comments concerning the value of exercise: "Since I've had a mental illness I've realised that sport – exercise – is important. 'Cause it's good for you. It's good for your blood circulation and your heart, keeps your heart healthy."

The final potential explanation is the most straightforward and probably most likely. The changing in terminology may simply be attributable to the participants' everyday, vernacular use of language. The use of "you" in place of "I" is, after all, a common alternative method of phrasing for many people in more casual conversation. Mark's comments about motivation make a subtle shift from a clear declaration of his own motivation ("I") to a more informal style of conversation ("you") which still relates to his own views and experience: "I got the enthusiasm for it. That's important. If you haven't got the enthusiasm – gotta have the drive to do exercise. You've got to want to do it."

Because of the close correlation between each participant's expressed views and stories across several meetings in addition to the general support given to those stories by the mental health professionals I do not suspect any of the participants of being anything other that honest. My research colleague concurred that, in general, the accounts appeared to be very consistent and believable. Certainly, two participants regularly broke into a more distant, abstract and generalised way of talking by using the second person. However, I formed the impression that, rather than this representing deception, the explanation for this switch was down to either simple vernacular or the need for self-protection when referring to events and thoughts that were a little too uncomfortable in the first person.

6.2 SPECIFIC ISSUES

Ben: Fragile consent

Ben was the first client at Redview Lane to agree to take part in my research and, as such, he was something of a pioneer! Despite being very positive and relaxed about the project whenever I saw him at Redview Lane, the formality of the prospective interview and the ethical requirements clearly created something of a tense atmosphere. Although Ben provided written consent, the formality of the written study information sheet (see appendix) and the requirement to *sign* the consent form was, I felt, intimidating and worrying for Ben (and, subsequently, the other participants too). Even in the case of a highly motivated and positive individual such as Ben, for a few moments around signing the consent form, I sensed that his decision whether to participate very much "hung in the balance". Had Ben been less committed, he may well have reversed his decision to take part at this moment.

Once Ben and I began talking, any tension rapidly dissipated and he returned to his positive, committed self. Throughout our two one-to-one interviews and during the course of the intervening three months Ben continued in this vein, offering me high levels of co-operation with regard to my research. In fact, I was surprised at the degree of openness and trust he showed towards me particularly during the interviews. The major problem in Ben's case study arose following the second interview and resulted in Ben suggesting he withdrew from the study.

As far as I can tell, this problem originated during the second interview while we were talking about Ben's experience of anxiety attacks while running. Although Ben had been extremely open in discussing personal issues such as his experience of an anxiety attack – I felt he had, to some extent, confided in me during the interviews – he eventually said: "I don't really like talking about it really because it just, know what I mean, I start talking about my illness and all that, it comes to the forefront, I don't really like chatting about it really." This comment was the first signal I noticed of the impending problems described in this excerpt from my field notes:

> During the second interview I conducted with Ben he had expressed some difficulty with answering certain questions. These difficulties, as far as I can tell, centred around talking about his personal experiences of having a panic attack when running. It is easy to understand that talking about these kind of experiences might be uncomfortable or painful. I had asked Ben to talk me through a recent running experience. Because he had mentioned his completing of a recent half-marathon, I had asked him to talk about that run specifically with the hope that his memory of how he felt would be clear and vivid enabling him to make a detailed description. Unfortunately it emerged that he had experienced a panic attack during that race. This made it difficult for him to talk about his feelings and thoughts. Throughout the interviews I tried to make it very clear that he should only talk about things that he felt comfortable talking about. Ben said that it was difficult for him to talk about times when he is unwell such as this specific instance. For that reason we continued the interview on a different tack.
>
> During this interview I had arranged to go on a run with Ben the following week and to meet him at his house as this was what he said was most convenient for him. I telephoned the morning of the run to ask if it was still OK for us to go on a run together. He spoke (off the phone) to someone else (probably his mother or father) about whether he should go. Shortly he replied that yes, it was still OK. I felt that perhaps something was not quite right and, not wishing to put any kind of pressure on him, asked if he was *sure* everything was OK and that he didn't have to agree to the run if he'd prefer not to. He quickly replied that, in fact he would rather not do the run today. I immediately said that was absolutely fine and did not enquire after a reason. Therefore I do not know whether he didn't want to run or didn't want to run *with me*. Ben seemed keen to make sure I wasn't "put out" by this change of plan and checked that we would still see each other around the centre. I confirmed that we would still be in touch and that it was really no problem at all.
>
> I spoke on the telephone with Sarah about both Ben's concern during the interview and the cancelled run. Sarah had attempted to arrange an interview with Ben's psychologist, Susan. Susan had wanted to check with Ben that it was OK for us to speak about him. Ben had replied that he would like to be present also and

had communicated some possible worry about being "talked about". This seemed understandable. Sarah had therefore wanted to speak to me some more about the interview, the cancelled run, and this four-way meeting.

Sarah and I discussed the delicate nature of conducting interviews with these clients where paranoia is a common issue. In my own opinion, these feelings on the part of Ben are reasonable: most of us are not faced with detailed interviews of this nature about our personal experiences and then asked if we approve of three other people meeting to talk about our confidential health history.

> According to Sarah, the interview or cancelled run had not been a major issue for Ben, instead they were things to be aware of in terms of any further follow-up work. We both felt that the four-way interview would be worthwhile in particular to chat about Ben's progress and the positive aspects of his experiences. Because he too would be present the reality of a potential "therapeutic" angle to the interview became clear. In other words, the direction of the conversation would be influenced and guided by his needs as he would be present. *(16th November 2001)*

Because Ben had seemed so enthusiastic about the idea of going for a run with me during the interview, his change of heart surprised me – I began to wonder if other issues were beginning to develop. It was when Sarah telephoned me to establish what exactly had been said during the second interview that I realised Ben was genuinely concerned – to the point he had spoken about his worries to Sarah. Ben's concern was once more clear when Susan, a clinical psychologist, sought his permission to discuss with me his background and progress: Ben asked to be present during any further discussions.

Ben's concerns, reasonably under his circumstances, led him to have second thoughts about taking part in the study. Ben's diagnosed mental health problems included a strong element of paranoia and it is likely that a feeling of having *said too much* during the second interview snowballed into his near withdrawal from the study. It was probably the support provided to Ben by Sarah, together with Susan's suggestion that the four of us meet as a focus-group to "tie up" any remaining issues, that provided the assurances Ben required to remain in the study. During the focus group, I once more described the details of the study to Ben and, with the help of both Susan and Sarah, reassured him that the study would be anonymous and that anything he said would be treated in confidence. Ben said he was satisfied with the situation but did not want any further interviews. The amount of time I had by now spent talking with Ben, and the detail and extent of information he had provided on his personal experiences, suggested

that I should not delve further into his life events. For this reason I decided not to approach any other mental health professionals in relation to Ben nor pursue his essay on long distance running that he offered to lend me during interview.

On balance, I feel Ben provided some revealing insights into the complex dynamics of running, coping, happiness, and challenge in the context of managing and recovering from a serious mental health problem. I take the perspective that the nature of his personal context implies that this is a "difficult" case and that it is unfair to "rummage around" further in Ben's life in order to learn more about exercise and mental health. The reality is closer to me focusing on learning what I can from the insights he has already provided. Ben appears to have no adverse effects from his concerns about taking part in the study. He remains friendly when I see him at the football group or at Redview Lane and his conversation includes references to the latest races he's run, the football matches he's played, his current training, and questions over what exercise I've been doing lately.

Mark: Interview shut-down?

In some ways Mark represented the case that I was most worried about finding. At first meeting, Mark struck me as a quiet and somewhat distant individual although as I came to spend more time around him he became more openly friendly. We first approached Mark about taking part in the research during a meeting Sarah had arranged in the café between the three of us. Mark seemed very relaxed and happy to chat in general and about his physical activity in particular yet appeared noticeably less relaxed when Sarah asked if he would be happy to meet me for a more 'formal' interview which would include a tape recording. It was difficult to tell whether the threat Mark perceived was the tape recording, the interview itself, or the possible topics of conversation that might arise.

Once in the interview setting, Mark's mood was significantly darker than it had been in the café the previous week. Gone was the open, chatty feel of our previous conversation to be replaced, not with hostility, but a quiet resistance to conversation. In short, in the interview context with the tape rolling our conversation was stunted; Mark had *shut down* in terms of description and expression of his personal experiences. It is possible that my mood contributed to this atmosphere. I was aware of the problematic issues in Mark's past – notably the reason for his imprisonment, sectioning, and the subsequent restriction on his freedom – and this knowledge might have affected my

handling of the interview. Whether or not I contributed to the tense atmosphere, Mark was certainly more guarded and cautious tending to offer brief, to-the-point, 'factual' type responses which did not invite further discussion.

Despite these difficulties, the interview continued and we covered all the areas on my interview schedule. As discussed in the case report, Mark provided plenty of valuable information despite my reservations over his willingness to speak during the interview. It wasn't, perhaps, Mark who felt uncomfortable during the interview – at no time did he show any sign of wanting to leave – rather it was me who sensed and worried over the 'difficult' atmosphere. On reflection, even acknowledging the less than optimal interview atmosphere, the interview had been a success. The worst case scenario would be a complete shut down by a participant. I had an action plan for this scenario: we would simply abandon the interview and try to repair any damage by having an informal chat over a cup of tea in the café. Even in this scenario there would, hopefully, be no irreparable loss. With this line of action, at least, the interview could potentially be re-scheduled should the participant feel inclined. In Mark's case, the outcome was much more positive: we *got through* the interview and, by the time it was finished he, at least, appeared happy and relaxed.

Colin: Too much good will?

Colin was an individual who co-operated whole-heartedly with my study from the outset. On the basis of his stories, behaviour, and the accounts of mental health professionals who knew him, physical activity has been profoundly important to him and he genuinely wanted other people to benefit in the way he has. In a sense, Colin was almost *too* positive as he voiced nothing but good things about his exercise experiences. Perhaps as a result of the suffering he has experienced through his mental health problems, perhaps as a form of gratitude for the care he has received from others, or perhaps simply because of his positive feelings about sport and physical activity, Colin seemed happy to do anything to help *me* document and communicate the mental health benefits of exercise. He was set, I felt, on altruistically passing on the "good news" for the benefit of others. This included not only his willingness to talk but also his encouragement of others (notably Shaun) to take part in the research and make the most of the exercise groups.

From a methodological perspective I reflected on the implications of Colin's positivity. How could I examine alternative interpretations of his exercise experiences

when he provided a total "good news" perspective? Were his responses irreconcilably biased? In short, *where were the problems?* Surely, they must be somewhere!

Reconsidering Colin's case, I came to the conclusion that, yes, he did talk of problems – at times, he *did* discuss negative issues. But the problems and the negatives were in the past. What I considered as a potentially excessive positivity – as his talk of *good things* – was more than balanced by the negative elements of his mental health problems. The *bad things* had occurred during the course of his fifteen year history of mental health problems. That is, a large chunk of his adult life had, to some extent, been dominated by problems and negatives – general *badness*. Colin was ready to move on. In comparison to his previous life, his current existence – of progressing towards recovery, immersing himself in several sports, and becoming socially involved with several groups of people through physical activity – was, in his eyes, wholly positive. Perhaps it is only in the wake of a period of such complete negativity that a person can *genuinely* be so totally positive; Colin's current *lightness* was only achievable because of his previous *darkness.*

Shaun: Interview or interrogation?

For Shaun, the decision of whether or not to take part in the study was, according to Sarah, a close call. Specifically, not knowing for sure what the interview would involve, Shaun was apparently worried about being "put on the spot" to talk about his experiences. I found this understandable given the nature of his illness and the probability that he had already spent a great deal of time talking about similar issues with a large number of different mental health professionals. It was, Sarah told me, the encouragement and reassurance provided by another participant (Colin) that swung the balance in favour of Shaun agreeing to take part.

With these issues in mind I was not without concern as I headed for our arranged interview. Even since we'd arranged the interview I had been expecting Shaun to cancel at the last minute. At the time, this worry should probably have been the least of my concerns as the issues discussed above applied to Shaun: If he *did* go through with the interview, would my questions cause him anguish or worry? Would the interview upset him by bringing back memories of painful periods of his life? Might it have an adverse effect on his recent progress? Would the interview trigger new problems? Would he be able to offer coherent responses or comments? Put another way, would what I considered as an *interview* become, for Shaun, an *interrogation*? Looking back, my

concerns, for the most part, were probably not warranted as Sarah would not have suggested him as a participant if these risks were a real threat. Yet, it remained my responsibility, as researcher, to do all I could to ensure the research process had no adverse effects on Shaun.

I decided, before arriving for the interview, the first clear priority was for the interview to go smoothly for him – regardless of the implications this may have for the quality of the data. I planned to do my best to ensure a friendly and unthreatening atmosphere and to begin by avoiding "risky" questions. Although I adopted this approach with all the participants, in Shaun's case it seemed to be even more of a priority given that his mental health improvements were so recent. I hoped that, with this approach, he would feel sufficiently comfortable to talk freely without the interview being either unpleasant or excessively demanding.

My concern that Shaun would cancel was unwarranted. When I arrived at the centre just before 11am, Shaun was already sat in the café with Sarah waiting for me to arrive. He had apparently arrived half an hour early and was happy to wait for the interview. Sarah felt that although he had taken his time to decide, he'd made a conscious decision that he *would* take part and so was going to go through with his decision. He'd even made the effort to come into Redview Lane on a day that he would not normally be there. In this sense, as Sarah expressed, participating in the research – actually keeping the interview appointment – was an independent landmark in Shaun's clinical progress being a reflection of his improved motivation and responsibility.

An important factor in minimising the risk of creating an *interrogation* scenario for Shaun was, I think, Sarah's attendance at the interview. Having known Shaun for several years, Sarah represented someone in whom Shaun could trust and feel secure; someone to accompany him on this new "journey" with a relatively unfamiliar researcher from the university. Sarah's attendance largely occurred by chance. While we were in the café, prior to the interview, it was Shaun who asked Sarah if she would be attending the interview. Sarah replied by asking if he'd like her to – Shaun replied that he would. In retrospect, the three-way interview was a successful strategy.

On the negative side, Sarah's questions were at times leading and her presence, as Shaun's physiotherapist and exercise initiator, might have encouraged Shaun to voice a more positive slant on physical activity than he would independently. It is likely that the conversation *was* influenced by Sarah's attendance. However, her presence also acted as a visible reassurance to Shaun – on several occasions, he looked towards her

before answering questions. Sarah's familiar presence probably helped to create a less threatening atmosphere in which Shaun could more easily relax. On balance, given Shaun's uncertainty, I felt that the interview had probably gone better through Sarah being present than if it had just been Shaun and I. Had the interview been conducted between just Shaun and myself there is a chance that the interview, for Shaun, would have felt more like an interrogation – leading Shaun to withdraw his co-operation completely.

6.3 IMPLICATIONS

In summary, none of these case studies were problem-free. However, given the nature of researching psychological change in people with a mental health problem, and the uniqueness of each participant's experiences, it is unlikely that any case could ever be completely problem-free. The purpose of this confessional account is primarily to highlight some of the problematic issues that I experienced in the course of *doing the research.* This, I hope, contributes in two ways. First, this discussion should serve to facilitate a more complete understanding of both the data I obtained and the interpretations I formed. Second, these specific, personal problems might provide, in a modest way, some form of guidance for the methods and methodology of future research in this area. As Sparkes (2002) suggests:

> Confessional tales tend to exist in a symbiotic relationship to the realist tales told about the same research. As such, they do not replace realist accounts but stand beside them by elaborating extensively on the formal elements of the methodology and saying what is unsayable in the realist telling (p.61) ... As such, confessional tales play a crucial role in highlighting the perils and pitfalls of the research experience, helping fellow inquirers learn from private mistakes (p.71).

With these comments in mind, there are three points which I believe should be considered in future studies:

1. The researcher should get to know a participant as much as possible before the 'study' formally begins. The ethical requirements of doing research with a vulnerable population are strict and can serve to intimidate potential participants. The more familiar participants are with the researcher before commencing the study, the less threatening the research process is likely to appear.

2. Is an "interview" the most appropriate means of gathering data among this population? Certainly during the early stages of research, it may be that a more suitable approach can be found that allows participants to communicate their experiences in a more natural manner. Although also problematic, "casual" conversation and interaction, participant observation, or even group work may be effective.
3. Should "we" be more trusting of "them"? On reflection, I could find few motives for participants to be deceptive. When the researcher is overtly *not* a part of the therapeutic team there seems little for participants to gain by deliberately distorting their reality. Perhaps we can afford, to a greater extent, to take participant's accounts at face value.

It is through the process of conducting this research that I have become aware of the importance of these issues when researching the lives of people with severe and enduring mental health problems. In a sense, these recommendations originate from the mistakes I have made along the way – or the pitfalls I have avoided through the guidance of experienced mental health professionals and the participants themselves. They are, therefore, lessons which can be learnt from *individuals* which, I believe, have the potential to generalise to other research contexts concerning people with mental health problems. Perhaps these points will smooth the process of future research and contribute to an improved understanding of people with severe and enduring mental health problems. I propose, however, that the recommendations above be considered as points to prompt thought and creative problem solving strategies rather than definitive guidelines.

CHAPTER SEVEN
CROSS-CASE ANALYSIS

This chapter is divided into four sections. In the first section I consider the value of the individual case studies that have been presented and propose a rationale for the use of the data for both intrinsic and instrumental purposes (Stake, 1995). The procedure and findings of a cross-case analysis are detailed in the following section. In the third section I discuss a sequence model which represents some common aspects of the participants' experiences. In this section I offer a synthesis of findings from the four cases and make links to existing literature and theory. The final section provides some reflections on the place of theory in this research – and how my perspective on this has changed as a result of conducting this research.

7.1 THE VALUE OF THE INDIVIDUAL CASE

The preceding four case studies are narrative accounts that I have constructed in an effort to make sense of, or understand, each participant's experiences independently. My aim in these reports was to provide thick description and interpretation of each individual's experiences without any requirement on my part to link with more general experience. As Stake has suggested, "We do not study a case primarily to understand *other* cases. Our first obligation is to understand *this one* case." (1995; p.4; my italics). The most important information is therefore information about the specific case. As recommended by Wolcott (2001), I withheld from making links to either theory or other research in favour of developing a thorough understanding of each individual case. Two specific techniques were particularly important in the process of developing a thorough understanding: *triangulation* and *crystallisation.*

My attempt to represent the rich complexity of each individual's experience depended in part on generating a comprehensive and accurate description of each case. I sought and, when available, presented confirming and refuting data from various alternative sources using the standard procedure of triangulation employed in much case study research (Stake, 1995). The primary purpose of this process was to build

confidence in the data or, in Stake's (1995) terms, to consider the question "Do we have it right?" (p. 107). That is, the inclusion of multiple data sources serves as a check of participants' sometimes incomplete memory of the specific events in their mental health histories to increase confidence in the historical accuracy of participant's accounts.

As Wolcott (2001) has suggested, in complex social environments, the process of triangulation can, at times, be problematic. Problems such as conflicting data, incomplete accounts, or the withholding of information imply that case reports never represent a "water tight argument" (Creswell, 1998, p.198). As such, I subscribe to Lather's (1991) suggestion that the case reports be considered as "a more open narrative with holes and questions and an admission of situatedness and partiality" (cf. Creswell, 1998; p.198). This is not, however, to say that nothing of a general nature can be learnt from the individual case studies. Instead, as Stake suggests, "people can learn much from single cases. They do that partly because they are familiar with other cases and they add this one in, thus making a slightly new group from which to generalise" (1995; p.85). As such, I relied on the notion of *naturalistic generalisation* by attempting to present an account that feels real to the reader. According to Stake:

> Naturalistic generalisations are conclusions arrived at through personal engagement in life's affairs or by vicarious experience so well constructed that the person feels as if it happened to themselves (1995; p. 85).

Facilitating naturalistic generalisation in this way is, in my view, no easy task and there is a considerable risk of failure. How could I create an account so vivid and real that readers might *feel as if it happened to themselves*? The answer to this challenge lay, I felt, in the words of the participants themselves – those who had experienced both a severe mental health problem and personal benefits from physical activity participation. Because the participants' accounts were often so vivid and real that *I* felt I'd experienced them myself, my best shot at encouraging naturalistic generalisation in the reader was to effectively communicate, or pass on, these stories in the text. To do this I created ethnographic fictions which draw on the techniques of *evocative representation* that "deploy literary devices to re-create lived experience and evoke emotional responses" (Richardson, 2000, p. 931). In so doing, I tentatively explored the notion of crystallisation where it is acknowledged that "what we see depends on our angle of repose" (Richardson, 2000, p. 934). The ethnographic fictions provide, I hope, a perspective approximating that of the individual, encouraging readers to develop a

sense of vicarious experience, to truly understand the individual. According to Richardson:

> Crystallisation provides us with a deepened, complex, thoroughly partial, understanding of the topic. Paradoxically we know more and doubt what we know. Ingeniously, we know there is always more to know. (2000; p. 934)

Although Richardson presents crystallisation as an alternative to triangulation, I have chosen to draw on the technique to supplement the more traditional approach of triangulation. I adopted Richardson's philosophy of crystallisation, then, to build a more *personalised* representation of each participant's experience through the presentation of an ethnographic fiction drawing on the participant's words and stories. My decision to use both forms of representation – the realist case report and the ethnographic fiction – was based on a desire to provide a comprehensive account. Realist tales provide author-constructed accounts of participants' experiences which, being the primary form of communication in qualitative research, tend to receive more credence and respect from the research community (Sparkes, 2002). The ethnographic fictions, in contrast, provide the participants with a more direct voice which may, for some readers, generate a more evocative and meaningful account to stimulate naturalistic generalisation.

Although the ethnographic fictions contain predominantly the participant's words, it is important to recognise that they too remain *my* account of the participant's experiences. That is, *I* created a partial and situated version of the stories the participants told me. Murray's (1999) point that "the bringing of order to disorder is implicit in narrative construction" (p. 50) is relevant here. As the constructor of the ethnographic fictions, I did much to *order* the accounts provided by the participants which resulted in the final relatively logical, structured, and understandable narrative. It should therefore be clear that the ethnographic fictions do not represent one single truth or reality for each participant – rather they represent my interpretation of their truth or reality.

This is perhaps important as serious illness tends to have a *disorganising* effect on peoples' lives (Murray, 1999). My involvement in the construction of each ethnographic fiction has likely resulted in a more organised representation of the individual's life than is typical of their experience. Although, as Murray suggests, the production of a coherent narrative may be an effective approach to restoring order to a disordered life, neither Ben, Colin, Mark, nor Shaun *did* produce coherent narratives – *I*

interpreted their disorganised accounts in order to construct a coherent narrative. It is here that, perhaps, the construction of a narrative comes full circle in linking to mental health. Could it be the case that, as suggested by Brooks (1994), "mental health is a coherent life story, neurosis is a faulty narrative" (cf. Murray, 1999, p. 60). If so, Ben, Colin, Mark, and Shaun may have been unable to produce a coherent narrative, or life story, as an implication of their mental health problems. The organisation and coherence of their stories, therefore, has been added through my own process of interpretation and obscures, in one sense, a full understanding of *their* experience of mental disorder.

It is only through conducting this research that my primary goal has shifted from *explanation* – a desire to understand cause and effect relationships – towards developing an *understanding* of human experience. According to Stake (1995), "the two aims are epistemologically quite different" (p. 38). Through researching the lives of the four participants I have come to value understanding as "a form of *empathy* or re-creation in the mind of the scholar of the mental atmosphere, the thoughts and feelings and motivations, of the objects of his study" (von Wright, 1971, p. 6; cf. Stake, 1995). However, because I initially set out to investigate explanatory-type questions I am, to some extent, obliged to also consider the four cases in this light. Although this may be seen by some as "hedging bets", I justify this approach as an attempt to gain the most insight from the data through a variety of analysis and representation styles.

Whereas the case reports were focussed on *description*, "making complicated things understandable by reducing them to their component parts" (Bernard, 1988, cf. Miles & Huberman, 1994, p.90) there remains to be tackled the difficult issue of *explanation.* Good description, however, is the first step towards explanation:

> Usually it is hard to explain something satisfactorily until you understand just what the something is. Thus a natural progression ... is from telling a first 'story' about a specified situation (what happened, and then what happened?), to constructing a 'map' (formalising the elements of the story, locating key variables), to building a theory or model (how the variables are connected, how they influence each other). We have constructed a deeper story, in effect, that is both variable-oriented and process-oriented (p. 91).

The case reports, in a sense, tell the participants' stories in a process-oriented fashion to construct a 'map' of their experiences and the factors or events important in their stories. To build from this towards a theory or model requires something of a variable-oriented explanation – an element of *synthesis* – to make "complicated things understandable by showing how their component parts fit together according to some

rules" (Bernard, 1988, cf. Miles & Huberman, 1994, p.90). These rules, according to Miles and Huberman, can be considered as *theory*. It is this form of generalisation – to theory as opposed to populations – that is often seen as a valid goal of qualitative case study approaches (Radley & Chamberlain, 2001). The following section addresses issues around explanation through a process of cross-case analysis, synthesis, theory exploration, and linking to existing literature. As such, it tentatively seeks some kind of general understanding that reaches across the four cases and, perhaps, contributes to a theoretical understanding of the experiences of people with severe and enduring mental health problems who engage in physical activity.

7.2 PROCEDURE AND FINDINGS

A critical factor in the successful use of cross-case analysis procedures is to avoid losing the individuality and depth of each case. According to Miles and Huberman (1994):

> Just adding up separate variables, as in a quantitative survey approach, will destroy the local web of causality, and result in a 'smoothed down' set of generalisations that may not apply to any case in the set – let alone others. Each case must be understood in its own terms, yet we hunger for the understanding that comparative understanding can bring (p. 172).

An important aim, then, of cross-case analysis is to use the insights provided through comparative understanding to build on and develop understanding gained through analysis of the individual cases. A real risk of this process, when attempting to further organise and synthesise four in-depth case studies, is information overload and confusion:

> No matter how well you understand things at case level, you are faced with the spectre of overload and unmanageability when you try to draw meaningful cross-case conclusions deeper than, 'Well, there are these similarities and these differences...'' (Miles & Huberman, 1994, p. 177).

Inevitably, some depth and richness of data will be lost in cross-case analysis as it is impossible to consider *all* the data in a more general analysis such as this. My priority was to avoid, at all costs, creating a misleading or overly simplistic portrayal of the four cases. The cross-case analysis procedures therefore had to be selected in order to, firstly, contribute to a *concise* understanding of key themes across the four cases and, secondly,

(perhaps) explain the participants' experiences in the light of a more general theoretical framework. In short, I had to follow Miles & Huberman's practical advice: "Focus on the do-able, while keeping as much richness as you can" (p. 177). With these points in mind I settled on a four stage analysis procedure which draws on the work of Miles and Huberman (1994):

1. I created a time ordered matrix which combines the four cases to understand and compare chronology (Table 7.1). This matrix focuses specifically on key landmarks in the participants' physical activity experiences: physical activity before being unwell, physical activity at onset of mental health problems, physical activity during acute phase/s, adoption of physical activity, and maintenance of physical activity. Through examining the information presented for each participant at each landmark it is possible to quickly gain a basic understanding of the similarities and differences of participants' experiences.
2. From the first matrix, two key stages of physical activity participation (adoption and maintenance) are taken and further explored through the construction of two partially ordered meta-matrices (Tables 7.2 and 7.3). For each of these matrices, information is presented for each participant under the headings: mental health, physical activity, facilitating factors, and effects. In constructing these matrices I followed the advice of Miles and Huberman (1994, p. 173), to "keep as much raw data visible as you can without running into excessive size or complexity" by including brief illustrating quotes from the participants.
3. Next, I constructed two cross-case matrices examining, in the participants' words, key themes involved in their experience of physical activity. Table 7.4 charts the process of change under the headings: being unwell, adoption of physical activity, effects of physical activity, recovery, and weight and fitness issues. Table 7.5 explores the factors of change (i.e. possible explanations for change) under the headings: autonomy and control, competence and achievement, motivation, returning to previous self, and social support.
4. Finally, I used a procedure of composite sequence analysis to draw on the experiences of each participant to show and highlight common paths and sequences. This procedure led to the construction of the seven stage sequence model shown in Figure 7.1 which is discussed in detail below.

Table 7.1: Physical activity histories

	Ben	Colin	Mark	Shaun
Physical activity before being unwell	• Keen footballer at school and in local league • Regular runner • Half-marathons	• Keen footballer at school and in local league • Independent football training • Some cycling and swimming	• Football at school and youth league	• Keen footballer at school and in local league
Physical activity at onset of mental health problems	• Abruptly stopped all physical activity	• Abruptly stopped all physical activity	• Stopped all physical activity before mental health problems began	• Gradual reduction in participation as mental health worsened
Physical activity during acute phase/s	• None	• Some supported gym and walking in hospital (short term only)	• None	• One-to-one football in hospital (low level participation)
Adoption of physical activity	• 5 years after onset • One-to-one gym sessions with physiotherapist • Improved mental health • Weekly anxiety attacks • Overweight and unfit	• 8 years after onset • Inconsistent football, walking, swimming, and badminton • Psychotic symptoms settled • Prominent negative symptoms • Overweight	• 17 years after onset • Initially low level gym sessions with physiotherapist • Continuing but controlled symptoms • Unfit	• 2 years after onset • Sporadic attendance at football and gym groups • Severe and continuing underlying illness • Some remission of positive symptoms
Maintenance of physical activity	• 5-7 years after onset • Running half-marathons • Regularly attends gym alone • Joins football group • Much improved mental health • Control of anxiety attacks • Significant weight loss	• 13-15 years after onset[18] • Regular football, walking, swimming, badminton groups • Mental health stable • No psychosis or depression • Low motivation continues • Minimal weight loss	• 17-18 years after onset • Football, gym, walking, badminton, and gardening groups 5 days/week • Mental health stable • No psychosis or depression • Improved motivation • Fitness improvements	• 3-5 years after onset • Regular football, gym, walking, table-tennis • Community football involvement • On-going mental health improvements

[18] Colin's initial adoption of physical activity led to only inconsistent and low level participation for the next 5-6 years. Lynn linked this to Colin's prominent negative symptoms. It was only after this time (1-2 years before interview) that Colin's physical activity participation became regular and consistent.

Table 7.2: Adoption of physical activity

	Ben	Colin	Mark	Shaun
Mental health	• Post acute phase • Weekly anxiety attacks	• Post acute phase • Prominent negative symptoms	• Continuing symptoms thought to be controlled by medication	• Severe and continuing underlying illness • Some remission of positive symptoms[19]
First physical activity	• Gym sessions on treadmill (individual)	• Gym and walking (group)	• Gym sessions (individual)	• Football (individual and group) and gym (individual)
Facilitating factors	• Stabilised mental health • Previous activity involvement motivated a return to running • One-to-one support from MH staff and family	• No further positive symptoms • Previous activity involvement • Support and organisation from MH staff	• Stabilised mental health • One-to-one support from MH staff • Motivated to improve fitness • Motivated to use time better	• Some remission of positive symptoms • Previous football involvement and enthusiasm • Support from MH staff
	"I was on the right medication,I felt better and I thought to myself, well, I'll get back into running again." *"If it wasn't for Sarah and Catherine I don't think I'd have got back into it - well, I would have got back into it but not so soon."*	*"Well, I was back. Once I got in the gym I used to go and do those exercises like on the bars, the weightlifting and the bike, and what have you and I used to get a buzz from that. It gave me a lot of confidence."*	*"I had a chat with Sarah when I was in woodwork and she suggested that I take up a bit of exercise to get a bit fitter."* *"Well, I realised I could use my time better."*	*"I think at the time I wasn't that keen to do anything really. But it got put upon me that I should be doing (something)."* *"We always try to do activities on the actual wards ... and all he would go for is the footie." (Simon)*
Immediate effects	• A return to previous self • Feeling good	• A return to previous self • Confidence, energy, "a lift"	• Sense of achievement • Improved concentration	• A return to previous self • Confidence and competence
	"The first time I was out running again I felt on top of the world like, I was actually back to what I used to be like doing running again."	*"Well, I was back."* *"When I took (Prozac) it gave me a lift. But when I was doing exercises it was similar to that. It gave me a lift similar to what I was on with the Prozac."*	*"(I was) a bit slow to start with. But Sarah said you'll improve as you go along... it was true." "It helps you to concentrate better on what you're doing ...when you're actually doing the exercise."*	*"I think when he's on the pitch he's a totally different person. Well, he's got more confidence with the ball and he knows he plays good." (Simon)*

[19] Shaun previously engaged in some one-to-one football while hospitalised during an acute phase of his illness. However, it wasn't until one year later that regular physical activity participation began at the same time as some remission of positive symptoms.

Table 7.3: Maintenance of physical activity

	Ben	Colin	Mark	Shaun
Mental health	• Much improved mental health and well-being • Anxiety attacks better controlled	• Stable mental health with no psychosis or depression • Continuing low motivation	• Stable mental health with no psychosis or depression • Well motivated	• Stable mental health • Remission of positive symptoms • Concentration difficulties
Physical activity	• Independent gym sessions • Independent road running • Competitive half marathons • 5-a-side football group	• 5-a-side football group • Walking group • Swimming • Badminton group • Skittles group	• 5-a-side football group • Supported gym sessions • Walking group • Badminton group • Gardening group	• 5-a-side football group • Community 11-a-side football • Occasional gym sessions • Occasional walking group • Table tennis
Facilitating factors	• Personal control (over anxiety attacks and physical activity) • Significant weight loss	• Social network of friends • Intrinsic attraction to sport	• Rapid fitness improvement • Improved concentration	• Social links to community sport • Intrinsic attraction to football
	"His panic attacks continue generally when running ... but he is able to continue running through the attack." (Susan) *"I sort of gradually built up to it. I lost a sufficient amount of weight to be able to run again."*	*"I feel supported with other people here... especially with the football team. Its people that I never knew before but I got friendly with, made good friends, and we all just participated in sport."* *"I've just (always) been mad on sports."*	*"I'm a bit fitter than I used to be. Like doing the wood work – I can saw pieces of wood easier. I feel stronger in myself."* *"I feel a bit more with it. A bit more alert than I was."*	*"Someone that used to come here spoke to me about this ability team ... so she phoned up for me and said can I go to the training."* *"I'd love ... to be able to play football for a living, be able to train every day, be brilliant really."*
Effects	• Increased valuing of life • A sense of achievement and recovery	• Achievement and use of talents • Optimism and hope • Living life now	• Increasing competence & fitness • Improved social relations	• Increasing personal control & structure • A sense of achievement & value
	"Now I've reached a point – in a way the illness has made me more conscious of life, and feel better about life, and how much life means." *"It's just having the right medicat-ion and the right frame of mind and exercising, you can totally get cured of a mental illness I reckon."*	*"It (exercise) brings all your talent out as well like... It brings the, say, the cleverness out of you... and I get satisfaction from that."* *"I'm optimistic. Cause you don't know what's gonna happen the day after do you? ... You gotta make the most of the day you're doing now."*	*"When he scored those goals and he was well chuffed ... he just smiled. It was well noticeable ... he was a little bit more sociable after the game as well... a little bit more talkative." (Simon)*	*"I've just been trying to organise this football league thing and stuff has been sort of quite beneficial to me really. Something to think about and something I get quite excited about to some extent."* *"I actually one the award for manager's player of the year ... I was quite chuffed."*

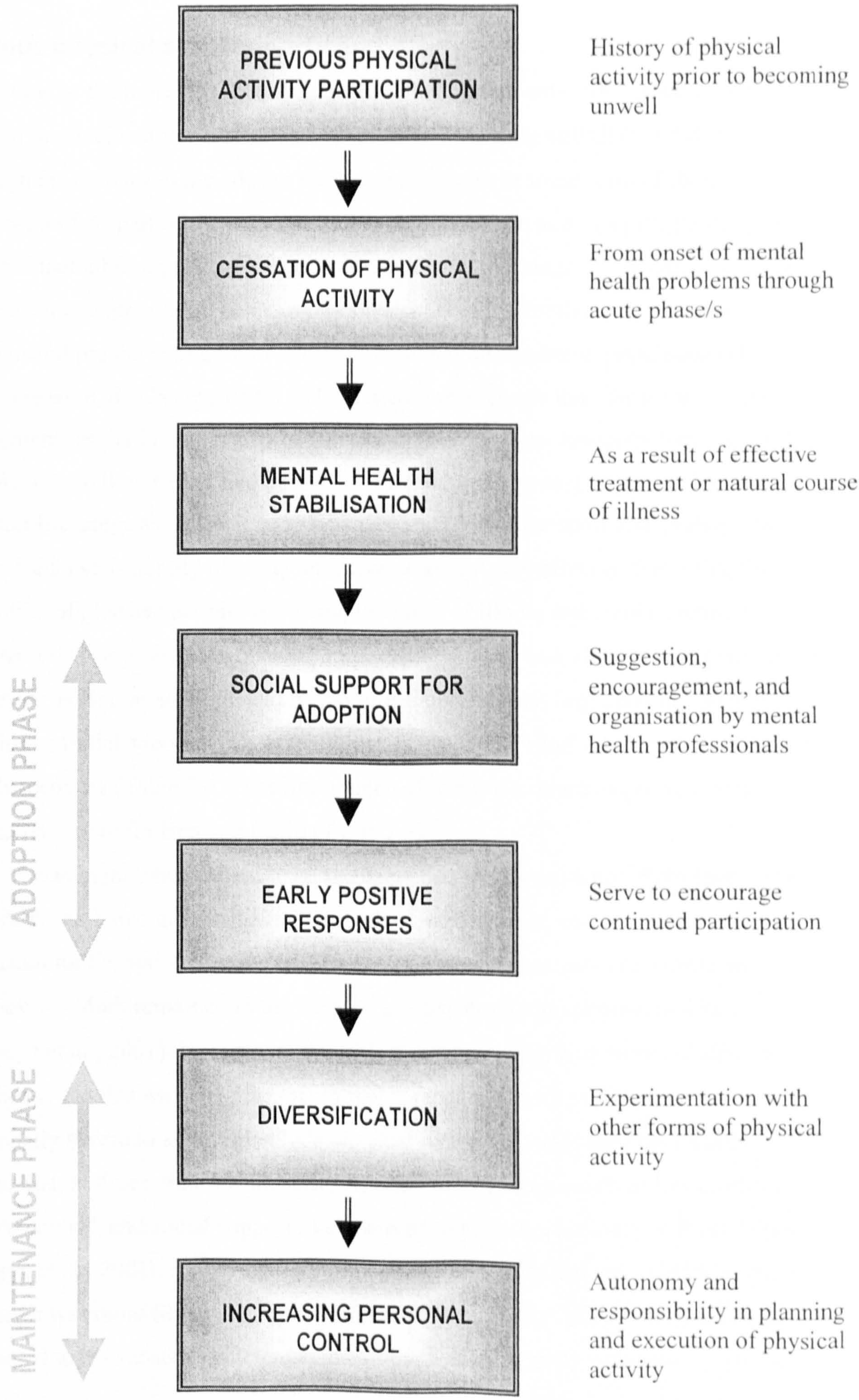
Table 7.4: Cross case themes: Charting the process

	Ben	Colin	Mark	Shaun
Being unwell	"Then I had no interest in it (exercise) … for four years I didn't do anything – I went up to 21 stone."	"I stopped football when I was unwell … cause I was pretty low."	"I wasn't into exercise during that period – just wasn't."	"I sort of didn't do it (football) for a while."
Adoption of physical activity	"I was on the right medication, I felt better and I thought to myself, well, I'll get back into running again and keeping fit again."	"Chaps would come round and take us out for a couple of hours so that was like a walking group really just to get out of the hospital. And then I started going to gym and … swimming – that was it then. It wasn't so bad then. I was actually on the road to recovery."	"I had a chat with Sarah when I was in woodwork and she suggested that I take up a bit of exercise to get a bit fitter. She said I wasn't very fit."	"I think at the time I wasn't that keen to do anything really. But it got put upon me that I should be doing (something) … it was just something, part of the programme that Sarah's got here."
Effects of physical activity	"You think more when you're running. I think. You can work things out. Things that are bad don't seem that bad anyway. It makes you feel better in yourself."	"When I took (Prozac) it gave me a lift. But when I was doing exercises it was similar to that. It gave me a lift similar to what I was on with the Prozac."	"It (exercise) helps you to think better. It helps you to concentrate better on what you're doing when you're actually doing the exercise."	"(Playing football) my mind's occupied – I think other things. I don't really think about bad things that I might think about if I wasn't doing something … It can happen with other things but I think sport is such an active thing it tends to have that effect on me."
Recovery	"I would see it that's it (running) is quite linked to recovery 'cause it's maybe getting back a bit of how he used to be before he became unwell." *(Susan)*	"It feels like in the main the sports side of it has aided him most in terms of motivation. That side of it – feeling a motivation like 'I can do this' – and self-esteem and all that sort of get up and go sort of stuff." *(Lynn)*	"I don't think, like with Colin, it (exercise) is his main thing… I think it's a combination of everything – not just his sport." *(Simon)*	"Well, I think at the moment I'm getting the feeling it's been his main thing – the football. But to get him there I think it was a combination of everybody." *(Simon)*
Weight and fitness issues	"The medication was making me worse. It made me put on a lot of weight and I couldn't do any exercise anyway, I was so overweight. I went up to 21 stone."	"He's still on risperidone which has side-effects of weight increase … He does have a fry-up every so often but he's not over-eating at all. It's the medication." *(Lynn)*	"(I was) lethargic, a bit slowed up. But I gradually got better, better at the exercise on the bike. Started off at about 2-3 minutes then stepped up to about 5 minutes."	

Table 7.5: Cross case themes: Exploring factors of change

	Ben	Colin	Mark	Shaun
Autonomy and control	"If you're keeping fit … you're actually feeling better – making yourself feel better."	"I think what's different about him is that he, more or less, *he* started doing the football. And, more or less, most of the changes have been of his own volition … he's started to take control of his own life." *(Lynn)*	"I decide what order I want … I decide what order I do the exercises."	"I've just been trying to organise this football league thing and stuff has been sort of quite beneficial to me really. Something to think about and something I get quite excited about to some extent."
Competence and achievement	"I like to feel that buzz when you know you've achieved something."	"We did a badminton tournament last year and Colin came third but there wasn't a prize for third place. And he went out and bought himself a trophy for badminton … he just admitted that he wanted to achieve something." *(Simon)*	"I have a sense of satisfaction that I actually played. Because I was doing something with my time. That's important I think – to actually be able to use your time properly."	"I actually one the award for manager's player of the year … I was quite chuffed." "It's important to him this football and that he achieves it. And if it didn't happen I think he would be devastated – very disappointed." *(Simon)*
Motivation	"But he's kept going with the exercise despite the fact that that's the one place where he still got the panic attacks. He's pretty determined." *(Susan)*	"I'd done something - I'd participated in something. It (exercise) was something out of the blue that came to me and I just had a go. I just attacked it in a normal way and, I appreciated what I'd done in the end. I got something out of it."	"I got the enthusiasm for it. That's important… You've got to want to do it. That's important."	"I quite enjoy football whether it's competitive or not. *(Pause)* If you haven't got that structure of playing you wouldn't sort of get round to playing that much would you?"
Returning to previous self	"I got the right medication, got everything into perspective, the exercise – 'cause I used to do exercise before I was unwell. I just got back to what I used to be like before. I'm OK now."	"I've just (always) been mad on sports … The sort of games that I played in the past when I was younger, and I sort of started back playing them again."	"I was starting afresh."	"I think I used to be better (at football) when I was a bit younger – before I had mental health problems."
Social support	"I think it was important for (Sarah and Catherine) to be there first of all. It gave me a bit of confidence. Because I was so unwell I wouldn't have had no confidence – thinking I was gonna have a panic attack."	"I feel supported with other people there (Redview Lane). It's people that I know mainly. Especially like with the football team, its people that I never knew before but I got friendly with – made good friends – and we all just participated in sport."	"Well you're meeting other people that are sharing a common thing … All doing the same thing. Got the same experience and got something to talk about."	"Well, through the OT's he's gone out and got a health promotion grant. But he needed a lot of prompting to do that – spent a lot of time doing it. It's like sometimes hitting your head on a brick wall sometimes. But he got there!" *(Simon)*

Figure 7.1: A seven-stage sequence model



7.3 A SEQUENCE MODEL

Previous physical activity participation

One of the more obvious similarities of the participants' backgrounds was a common involvement in physical activity prior to becoming unwell (see Table 7.1). Although most males in the UK are likely to participate in some form of football while at school, both as part of the physical education curriculum and as a playground game, it is notable that all four participants progressed beyond this stage in joining an amateur league team outside school. A history of physical activity involvement has been found to be a useful predictor of current exercise participation in general populations (Lox, Burns, Treasure, & Wasley, 1999) and the literature suggests that, for some people, this involvement results in the forging of a personal identity as *an exerciser* (Brettschneider & Heim, 1997). Ben, Colin, and Shaun's continued involvement in physical activity into adult life suggests, at the least, a personal enthusiasm for sport and, perhaps, that they formed a self-identity of being an active person. A key effect of this is that the resumption of physical activity following the onset of illness represents a return to previous self. The desire to "get back" to physical activity was identified by participants themselves as well as some mental health professionals as an important motivating factor in the initial adoption of physical activity (Table 7.2) and subsequent progression towards recovery (Table 7.4). The importance of making a return to previous self was particularly strong for Ben and Colin (Table 7.5).

It was Mark who seemed to be the exception to this sequence. Retrospectively at least, Mark attributed great value to his football participation, communicating his enthusiasm for the sport. Yet, for a period of 25 years he took part in no exercise whatsoever – Mark remained in the stage of pre-contemplation or contemplation (Courneya et al., 2001). It seems implausible that a person with an exercise identity could behave in this way – unless, of course, his mental health problems were significantly severe to simply preclude physical activity. Mark's medical records indicate that, at times, this was the case. At other times, factors such as low motivation, personal control, and social support likely served to maintain his inactive lifestyle (see Courneya et al., 2001). Rather than a strong exercise identity leading to Mark's return to exercise, it was more likely the case that favourable memories of exercise participation contributed to his subsequent re-engagement in physical activity when changes to his

life conditions allowed. As Mark himself suggested, he was *starting afresh* rather than *picking up where he left off* (see Table 7.5).

Cessation of physical activity

It is well accepted that very low levels of physical activity are commonplace among people with severe mental health problems (Brown et al., 1999; Faulkner & Biddle, 1999; Faulkner & Sparkes, 1999; Martinsen, 1993) and this observation is supported by these four cases. Through the most severe and debilitating stages of illness all participants took part in minimal physical activity (Table 7.1). For Ben and Colin, cessation was abrupt and dramatic, occurring at the onset of psychotic symptoms whereas for Shaun a more gradual withdrawal from physical activity mirrored the slow deterioration in his symptoms. Mark, in contrast, had already stopped all physical activity prior to becoming unwell. Minimal levels of physical activity continued for all participants from onset of their mental health problems through the acute phase/s of illness. The general absence of exercise is reflected in all four participants' comments regarding a complete lack of interest in physical activity at this time (Table 7.4).

The vague and somewhat matter-of-fact tone of the participants' descriptions of this time period make it difficult to identify precisely *what* prevented each participant from exercising. However it seems that, for all participants, psychological factors inherent in the experience of an acute psychotic episode simply removed the possibility of exercise participation during the most debilitating stages of their illness. In Ben's case, it was also aspects of his treatment (i.e. the weight gain side-effects of his medication) that were, in his view, responsible for his inactivity (Table 7.4). Ben's perspective is strengthened when one considers the relatively common physical and motivational side-effects of anti-psychotic medication (British National Formulary, 2002; Green et al., 2000).

It is, I think, important to understand that it was only the *most* debilitating episodes of these severe mental disorders that precluded physical activity. It is informative that the case reports of both Colin and Shaun discuss short term or low level physical activity participation even while these individuals were based in in-patient psychiatric wards. By any definition of health or disorder, both Colin and Shaun were seriously unwell at this time. Yet they still took part in exercise (Table 7.1). Given the fluctuating nature of both Colin and Shaun's mental health (discussed in the case reports) it is impossible to determine whether their exercise sessions occurred during

their most acute phases or during brief remissions from the most debilitating symptoms. Intuitively, it would seem likely that their physical activity took place on their *better days*; when they were functioning at a level somewhat above their most severe disablement. That is, Colin's walking and gym sessions, and Shaun's football, took place at times when their mental health problems had, for a brief period, lessened slightly. That said, it is impossible to write off completely the possibility that, for Colin and Shaun, the physical activity actually provided a route *out of* the most debilitating stages of their problems.

Mental health stabilisation

The medical records of all four participants document a degree of mental health stabilisation before their physical activity participation began (Table 7.2). Both Ben and Mark's mental health was, at this time, noted to be "stable", implying that they had progressed beyond the acute phase/s of illness to a less volatile level of psychological functioning. In a similar way, Colin and Shaun's records document some remission of positive symptoms. Ben, in particular, voiced the issue of being "well enough" to exercise through better control of symptoms which he attributed to finding the "right" medication. It appears that either aspects of treatment or the natural course of illness were important in leading to a stabilisation which facilitated exercise participation.

Although I am unable to untangle the complex interaction of various treatment types and the natural course of illness, it seems that settling on a suitable medication type and dose was important in achieving stabilisation. It may be that positive effects of medication were primarily responsible for the effective management of symptoms and the stabilisation mental health. On the basis of participants' medical records, this perspective seems likely. The effects of anti-psychotic medications are never wholly positive and the benefits of each medication must be balanced with the side-effects that are experienced by the individual (see British National Formulary, 2002). Some degree of trial and error in prescription is therefore common. At times when their prescription was inappropriate (i.e. when the side-effects were unacceptable) all four participants are recorded to have experimented with medication cessation *en route* to achieving an acceptable medication prescription. The combination of symptom control provided by the *right* medication, combined with the removal of undesirable side-effects of the *wrong* medication was likely an important factor in achieving the mental health stabilisation that was a prerequisite to physical activity participation.

Social support for adoption

The process of exercise adoption is widely acknowledged as problematic and challenging at the best of times (Buckworth, 2000; Courneya et al., 2001; Dishman, 1994) and is often even more difficult in the context of severe mental health problems. The process by which Ben, Colin, Mark, and Shaun successfully began to exercise is therefore of particular interest and relevance. It is noteworthy that, prior to exercise adoption, all the participants had voiced a general disinterest in engaging in physical activity (Table 7.4). This disinterest, or lack of motivation, is likely to make the process of exercise adoption *more* difficult still. How, then, did Ben, Colin, Mark, and Shaun successfully negotiate this difficult stage?

Two key factors have already been raised as similarities among the four participants which appear to have been important issues in the process leading up to exercise adoption. First, all the participants had a history of exercise involvement which, for Ben, Colin, and Shaun at least, seems to have *predisposed* them to return to physical activity. Second, a degree of mental health stabilisation had occurred in each individual and this improvement likely acted as a necessary *prerequisite* for exercise adoption. It was a third factor, raised by all four participants, which seems to have been necessary, perhaps critical, to actually make their adoption of exercise become a reality. This factor was social support.

Social support is recognised as a determinant of exercise adoption and adherence in general populations (Courneya & McAuley, 1995; Courneya et al., 2001; Duncan & McAuley, 1993) and may be particularly important for those who are also coping with a health problem (e.g., Biddle & Fox, 1998; Faulkner & Sparkes, 1999). Although social support may conceivably be provided from variety of sources (e.g. family, friends, other clients) it was, for Ben, Colin, Mark, and Shaun, the support provided by mental health professionals directly involved in the delivery of the exercise activities – the physiotherapists at Redview Lane, namely Catherine, Sarah, and Simon – which proved critical (Table 7.2 and 7.5).

Analysis of the comments of the participants and the mental health staff provides several useful insights. First, the support provided was *intensive*. Whereas relatively short-term and low-level social support may be effective in certain contexts (Duncan & McAuley, 1993; Hardcastle & Taylor, 2001), it appears that intensive, long-term support was required by these individuals. That is, the physiotherapists were heavily involved with clients for an extended period of time which began before

exercise adoption and continued into the maintenance phase. The intense level of support considered necessary is illustrated by Simon's daily job of telephoning each member of the exercise group to remind them of the day's arrangements.

Second, the type of social support provided can be separated into different types or styles. An initial stage of support can be considered as *awareness raising*. Both Mark and Shaun described a process through which the physiotherapists raised the issue of physical activity in the guise of it being a worthwhile and enjoyable activity which would benefit their physical health. Likewise, physical health issues (i.e. being overweight) figured strongly in Ben's decision to begin exercising – he was keen to lose weight. Awareness raising can therefore be considered as a form of exercise promotion where clients are, basically, sold the idea of exercise as a "good thing" and much of the publicised value concerned the positive effects of exercise on physical health.

A second stage of social support during adoption can be described, using Sarah's word choice, as *engagement.* This stage appeared to involve a very close interaction (often one-to-one) between mental health staff and each individual client in order to both capture their interest and generate maximum enthusiasm for physical activity. This stage, Sarah felt, is often the primary factor of successful adoption – in Sarah's view, once individuals are engaged in physical activity the most difficult challenges of adoption have been successfully met. A third stage of *practical facilitation* on a day-to-day basis was also important for all four participants. During this stage, mental health staff both took care of the organisation aspects of exercise sessions and, usually, attended every exercise sessions in person to both encourage and reassure the individual. Particularly in Ben and Mark's case this support was provided on a one-to-one basis which helped to build confidence, provide direction, and generate motivation.

Early positive responses

With these three broad factors in place Ben, Colin, Mark, and Shaun successfully negotiated the obstacles to exercise adoption. Yet, I felt some other factors must have been involved in the passage from initial exercise adoption to maintained exercise participation. One factor, a return to previous self, has already been discussed and, for Ben, Colin, and Shaun, was an almost immediate psychological reward for their early exercise participation. The other key factor, which seemed to encourage a continuation of exercise, was all four participants' experience of immediate psychological benefits from even their earliest exercise sessions (Table 7.2). Although

popular opinion holds that psychological improvements from exercise only accrue from long-term participation, there is increasing research to support the occurrence of acute benefits (Biddle, 2000). Psychological factors such as improved concentration, feeling good, gaining "a lift", and feeling more energised were raised by the participants as benefits that resulted from their first few sessions. Naturally, these positive experiences tended to encourage attendance at the next exercise session.

Interestingly, competence and a sense of achievement also emerged as early positive factors for Shaun and Mark. Both competence and a sense of achievement are recognised as potential psychological benefits of exercise participation (Fox, 1997; Fox, 1999), although it is not normally expected that perceptions of competence would improve during the first few exercise sessions. For Shaun, however, Simon felt that competence at football was a major attraction and reward even during the early stages of exercise participation. In contrast to any other activities available to Shaun, football was something that he could actually *do* – and do well. The opportunity to re-discover his competence was something that, in Simon's view, drew Shaun to continue exercise. Shaun's relatively heavy involvement with football in comparison to other exercise forms offers some support for Simon's view.

In a similar way, Mark discussed a sense of achievement from even his first few exercise sessions which is somewhat at odds with the assumption that a sense of achievement is more likely to result from prolonged participation. Mark's achievement, however, was *not* competence related (this is reflected in his reports of completing only very short two or three-minute exercise sessions initially). Instead, Mark drew feelings of achievement from having *used his time* effectively. For Mark, a major psychological benefit was the feeling that rather than spending his time idly (e.g. watching television or just hanging around the centre) he'd actually done something worthwhile and constructive. In the context of the commonly inactive lifestyles of people with serious mental health problems (Brown et al., 1999), it is easy to see how an exercise session could add a sense of purpose to the day.

Diversification of physical activity

As individuals moved into more of a maintenance phase, the occurrence of perceived improvements in competence and a sense of achievement became common across all participants (Table 7.3). For Ben this took the form of a return to competitive running, for Colin it was a chance to "bring out" his talent for sport. Mark became a top

goal scorer in the five-a-side group while Shaun won a player of the year award at his football club. Notable at this time, for all participants, was continuing "stable" or "improved" mental health and a diversification of physical activity experiences. In short, all participants *increased* their exercise participation in a wider range of different activities.

Several factors seemed to facilitate this diversification and progression from adoption to activity maintenance. First, for both Ben and Mark, physical health and fitness improvements allowed an engagement in a greater range of exercise types which, before, they were simply unable to manage. In Ben's case, significant weight loss enabled him to run further and faster, thus facilitating a return to half-marathons. For Mark, a general improvement in fitness and physical condition generalised across his exercise activities as well as his vocational activities such as gardening and woodwork. Second, for Colin and Shaun, an intrinsic, lifelong attraction to sport combined with a network of sport-related friends, seemed to open up new activity and social possibilities. For Shaun, football friends introduced him to a new club and encouraged his more dedicated and ambitious involvement with the five-a-side team. For Colin, friends made through football, skittles, and cricket participation became the friends with whom he would socialise. These social ties, combined with a desire to be "in" sport, maximised the likelihood of Colin and Shaun's maintained sport and exercise participation.

Inevitably implicated in activity diversification, I think, is the concept of confidence, competence, and achievement generalising across different spheres of life. It is important from the perspective of long term mental health improvement and the chances of recovery that improvements in one area of life have the potential to generalise to other areas. The comments of the participants as well as mental health professionals suggest that this kind of generalisation had indeed occurred for Ben, Colin, Mark, and Shaun. Table 7.3 shows examples of this process for each participant. For Mark, increased goal scoring generalised not only to other his football as a whole, but also to his social relationships where, according to Simon, he became a little more sociable and talkative. Likewise for Shaun, whose competence for *playing* football seemed to generalise to his increasing ability to *organise* football league matches and events. For Ben and Colin this generalisation was perhaps more profound as both referred to an increased positivity towards life in general as a combined result of their exercise involvement and their experience of mental illness. Ben described this as a greater awareness on his part of the value of life and improved feelings about *his* life.

Colin discussed his sense of optimism for the future and his desire to make the most of each day.

Also important during this process of diversification, from a practical point of view, are the range of physical activity types available to each individual. It is apparent that participants often diversified into exercise forms that were easily accessible either through the programme offered at Redview Lane (e.g. swimming, badminton, walking). Other activities based elsewhere were also initiated following some form of encounter at Redview Lane. That is, Redview Lane both provided activities directly and provided *access* to alternative activities through establishing contacts or networks. This provision of access resulted in three participants becoming involved in activity outside of Redview Lane[20] thus meeting a stated aim of the mental health services to facilitate clients becoming more involved in community activities (Childs & Griffiths, 2003). The provision of structured physical activity opportunities within Redview Lane combined with a socially supportive atmosphere encouraging diversification seems to have been effective in this regard – Ben, Colin, and Shaun all became involved in exercise outside the confines of Redview Lane.

Increasing personal control

In a way it seems strange to discuss autonomy and personal control in the context of people who, during the acute phase of illness, appeared to be so dependent on others. In other words, while receiving treatments of various ways for their mental health problems, there was little sign of autonomous action. Low levels of personal control and autonomy have been widely implicated in mental health problems of various types (Cloninger, 1999; Cloninger et al., 1999; Deci & Ryan, 1995; Nix et al., 1999) and, perhaps, are an inherent result of experiencing a severe mental health problem (see Chadwick, 1997a, 1997b for discussion). Medical records as well as comments from participants and staff suggest that, during the more debilitating stages of illness, Ben, Colin, Mark, and Shaun were characterised by a high degree of *dependency*. This dependency was targeted at their treatment providers and support workers, family, and friends. An extreme level of dependency is common among not only people suffering from schizophrenia but also many other serious mental and

[20] Mark was the exception and it is likely that his section prevented him individually joining groups in the community or exercising independently.

physical health problems (e.g. Childs & Griffiths, 2003; World Health Organisation, 1992).

The high levels of dependency common among all participants during the acute phase/s of illness makes the preliminary signs of autonomy and control noted in Ben, Colin, and Shaun particularly striking (Table 7.5). Notably, these first demonstrations of autonomy occurred in physical activity settings. For Ben, autonomy was important in more than one regard. First, running provided him with an effective strategy for coping with (and, at times, defeating) the most debilitating effect of his mental health problem: an anxiety attack. Second, exercise in general was a controllable behaviour which enabled him to feel that he was doing something to make *himself* feel better. In other words, when exercising, he was no longer dependent on others for his well-being or "treatment". Third, physical activity allowed him to personally exercise some control over his body weight. For Shaun, autonomous behaviour was first noticed by staff in the context of the five-a-side football team when Shaun began to generate ideas and assume control for organising events. Shaun himself recognised his increasing responsibility within the five-a-side group as something that had been personally important and something that he was excited by.

Colin's care co-ordinator identified autonomy – acting under his own volition – as the factor which differentiated Colin from many other clients and was most closely linked to his marked mental health improvements. Colin's enthusiasm and intrinsic attraction to sport and physical activity appeared to lead him into participating in new activities and maintaining his involvement over long time periods. It was Mark who, despite improvements in his mental health over the preceding seven months, demonstrated the lowest levels of autonomy, relying heavily on staff for the organisation and instigation of his exercise sessions. The only mention of personal control in Mark's case regarded the decision of which order to perform the gym activities. Although, for Mark, unescorted, independent activities were impossible under the terms of his section restrictions, this was not, I feel, the *only* factor in his lack of autonomy.

Separating Mark from the other participants was the recent nature of his exercise adoption. While the others had been exercising for two or more years at the time of interview, Mark had only exercised for a matter of months. Additionally, Mark had an extremely lengthy period on inactivity before adopting exercise (Table 7.1). Herein lies a key to understanding the role of autonomy in participants' recovery. For Ben, Colin,

and Shaun, autonomy and control only arose through their *continued* participation. It was not an immediate effect of the first few exercise sessions – it came about only once exercise had become a familiar and consistent aspect of lifestyle. In other words, each participant's initial forays into physical activity were only possible because of the support offered by mental health professionals. There was little, if any, suggestion of personal control on the part of clients during the adoption phase of exercise. Even in Colin's case, where autonomy subsequently influenced a diversifying involvement in new activities, *initial* participation was by no means autonomous – it depended heavily on intensive social support from mental health staff. Mark had simply been exercising for too short a time to have reached a stage where he could act autonomously.

Perhaps the most important aspect of these demonstrations of personal control within exercise environments, given the likely links between autonomy and mental well-being (Cloninger, 1999; Deci & Ryan, 1995), is the potential for autonomous physical activity behaviours generalising to autonomous lifestyle behaviours. A reoccurring theme from the stories of Ben, Colin, and Shaun was the notion of personal control linking to a real possibility of recovery. Feelings of personal control, through, perhaps, an interaction between increased confidence and optimism created a strong positive feeling for all these participants. That is, despite some painful mental health experiences, sometimes over many years, each participant seemed to hold hope for the future: that they were on a path towards recovery (Table 7.4). Increasing control which was demonstrated through physical activity would become a template for demonstrating increasing control in life as a whole.

7.4 REFLECTIONS ON THEORY

This research project began from a specific theoretical stance that posited the dependence of mental health and well-being on an interaction between autonomy, social relations and support, and competence. Two existing theories supported this hypothesis as one worthy of investigation. First, from a psychosocial perspective, Deci and Ryan's (1995) self-determination theory sees poor mental well-being as a consequence of low levels of autonomy, relatedness, and competence (Ryan & Deci, 2000). Conversely, individuals displaying high levels of these three constructs would exhibit true self-esteem. Second, from a psychobiological perspective, Cloninger (Cloninger et al., 1993; Cloninger et al., 1994; Cloninger, 1999) proposes an interaction between biologically

determined personality (temperament) and socially determined aspects of character, particularly self-directedness and co-operativeness. According to Cloninger and colleagues (1999), when self-directedness and co-operativeness are low, risk of mental disorder is increased.

This study, although not answering the difficult question of whether these theories apply in the real world, does shed some additional light on the on-going discussion. From the case reports themselves and the discussion above, it is clear that social factors *were* associated with mental health improvement in the participants. First, social support facilitated exercise adoption and adherence. Second, social relations and interactions generally improved as a direct result of exercising in group settings. Likewise, autonomy *was* an important factor, this time not so much during the early stages of exercise participation, but more in terms of participants' on-going and long-term moves towards recovery and independence. In terms of competence, interpretation is less clear. Perceptions of competence were seemingly very low during the acute phase of illness and this may well have been influenced by the observation that participants actually *did* very little while they were unwell. In other words, how can individuals generate a sense of competence in activities if they do no activities? Competence did however appear to be linked with the important notion of a return to physical activity which was important for Ben, Colin, and Shaun. These individuals, in a sense, returned to something which, they felt, *they were good at*: an area of previous achievement. Similarly, like autonomy, perceptions of competence appeared to increase as a result of continued participation and, importantly in terms of recovery, may also have encouraged a sense of competence and confidence in other areas of life. In this sense, that the findings of this study are in line with existing theory – there is little here to *challenge* existing theory.

However, reflecting now on the links between this study and my original theoretical perspective, I am aware of a degree of tension and uncertainty. In the context of these four individuals, and their complex life experiences which I am now beginning to understand, my original theoretical stance now appears somewhat naïve and shallow. Yes, the theoretical approaches were relevant and this is reflected by the factors raised by participants and staff alike. But one theory by no means explains the experiences of these people whose uniqueness and diversity can perhaps never be captured by a single theoretical perspective. There are simply too many factors of a psychological, sociological, biological, and historical nature which influenced both the initial

occurrence, and the subsequent improvement, in Ben, Colin, Mark, and Shaun's mental health. This diversity is reflected by the perspective taken in the Surgeon General's Report on Mental Health (US DHHS, 1999):

> Mental health and mental illness are dynamic, ever-changing phenomena. At any given moment, a person's mental status reflects the sum total of that individual's genetic inheritance and life experiences. (p. 16).

That is, many factors of diverse origin affect the onset and course of a mental health problem. Thus, it seems, many factors have the potential to contribute to recovery.

My unease with theory perhaps goes beyond questions of a psychological nature concerning mental health and illness towards more philosophical issues concerning the place of theory within qualitative research. Although I began this research with a strong theoretical stance, according to Wolcott (2001), this approach is unusual, particularly for novice qualitative researchers when the inherent complexities can become problematic. With the benefit of hindsight, did my research stray from Wolcott's recommendation to "keep your theorising modest and relevant … theory should serve your purpose, not the other way round" (2001; p. 77 and 76)? The reality, for me, of learning so much about other people's experiences served, to some extent, to negate the advantages of a strong theoretical background. Doing the research, I was made aware of the importance of factors that I had never previously been aware – they could never, therefore, be part of my initial theoretical stance. The research process, for me, was one where "first you write and then you figure out what you are writing about" (Geertz, 2000, p.vi, cf. Wolcott, 2001, p. 77) as new issues arose during the course of study that I have tackled through the process of writing and interpretation. To some extent, the experience of doing the research changed even my research questions during the course of the research. This, according to Wolcott (2001) is not unusual or problematic:

> Part of the strategy of qualitative inquiry – a key advantage of the flexibility we claim for it – is that our research questions undergo continual scrutiny. Nothing should prevent a research question or problem statement from going through a metamorphosis similar to what a researcher experiences during the course of a study (p. 40).

Having critiqued my own use of theory, I should also acknowledge some value of this approach – it is not all bad! Despite my reservations now about how my research might fit with the theories of Deci and Ryan (1995) and Cloninger and colleagues (1994), these ideas served a valuable purpose in guiding my research and stimulating

personal interest and motivation to investigate whether these somewhat abstract ideas *did* apply to real people with a real mental health problem who really exercised. In a sense, my initial theoretical position served as a *useful preconception* to target and direct subsequent inquiry. According to Locke:

> Some preconceptions may be necessary to give initial guidance to a study, but altering or abandoning them is a common necessity. It is always possible to make data fit theory, and doing so always defeats the purpose of research. (1989, p. 9)

Although theory has been a useful part of the process, it would be dangerous and foolhardy to attempt to *fit* complex, rich data on individuals to a perhaps inappropriate or incomplete theoretical perspective. The participants' stories have more to say, I feel, in their own independent terms without needing to risk a distortion to fit with theory. This is the view I now take of the place of theory within this research: As a valuable tool in guiding study, but something that is less relevant in terms of the interpretation and understanding of Ben, Colin, Mark, and Shaun's experiences which, independent of theory, provide a valuable source of knowledge and understanding about the experience of physical activity as a person with a severe mental health problems.

CHAPTER EIGHT

CONCLUDING DISCUSSION

In this chapter I discuss two remaining issues in an attempt to "round off" this research. First, given my use of ethnographic fiction in each case study, I reflect on the extent to which the emerging criteria identified in chapter four may or may not have been met by the four ethnographic fictions. Second, I offer a final interpretation of this research by raising some issues and observations to perhaps prompt the reader to reflect on, and further investigate, the relationships between physical activity participation and mental health.

8.1 A RETURN TO REPRESENTATION

The first process I utilised in judging the ethnographic fictions against the eight criteria discussed in chapter four was the act of analysing and writing the participants' stories. As Richardson (2000) suggests, writing itself is a process of thinking and reflecting and, as such, I was engaged in a cyclical personal process of assessing the quality of the stories as I wrote. From the outset, I selected the extracts and stories from the interview transcripts on the basis of their *impact* on me as the reader. In this sense the stories tend to focus on aspects of the participants' lives which moved *me* – affected me emotionally and intellectually – encouraging me to write each particular "chapter" into the ethnographic fictions. Similarly, as I wrote I attempted to develop a smooth flow to each story which would enable the reader to move from one part of the story to the next in a coherent fashion. On my own readings of the stories, and through the editing process, I found a degree of *coherence* – the parts of each participant's story seemed to fit together and flow in a meaningful manner.

In terms of *fairness*, there was a need to present within each case study an overall balance of views and perspectives. The narrative case reports contain the voices of several stakeholders in an effort to confirm or challenge any single perspective. Within the ethnographic fictions, however, one voice is dominant. For Ben, Colin, and Mark the dominant voice is theirs. For Shaun, the dominant voice is that of the exercise

leader, Simon. The question of whether fairness has been achieved within each ethnographic fiction is therefore a difficult one. I would argue that the single most important voice in the context of this research is that of the participant – it is them who have lived through severe and enduring mental illness and experienced the benefits and challenges of physical activity participation. Consequently, it is their voices which I foreground. This in itself is an unusual occurrence in mental health settings where the experiences and perspective of the service user are often sidelined (Repper & Perkins, 2003). On reflection, I feel that a critical aspect of fairness is being fair to the individual participant by representing their story in a balanced fashion and portraying their experience with sufficient context to enable the reader to develop empathy and understanding. On reading and re-reading the four short stories I find the picture of each participant to be fair and balanced according to my understanding of their experiences.

In order to gain some preliminary feedback on the ethnographic fictions, I read *The future's looking bright* to a friend who had no connection with mental health services. I was reluctant to ask anyone to listen to or read the stories for fear of boring them with academic work so I attempted to play down the issue by asking a friend to listen as I read the story while she worked in her kitchen. Soon after I began reading, my friend stopped her work and stood still, appearing to listen attentively to the story while leaning against a worktop. On finishing the story I asked if she had any thoughts or comments: "I want to know more!" was the reply. The story, for this listener, had sufficient impact to cause her to stop her work to listen more fully and was sufficiently evocative, authentic, and expressive for her to "be affected" by Colin's story and want to know more about his experiences.

My first opportunity to present one of the ethnographic fictions in public came at a qualitative research day held within our university department. The preceding talks had all been traditional academic presentations and the audience of thirty students and staff were probably not expecting to hear a story! Once again, I read *The future's looking bright* without introduction or explanation. To my relief, the room remained quiet throughout the ten-minute reading and the audience seemed to listen attentively throughout. Although little feedback from the audience members was forthcoming, during the following coffee break one member of the audience approached me for advice on how to deal with her own mental health problems and how physical activity might help. During this conversation, it became clear she assumed that because the story was in the first person and it was me doing the telling, that the experiences were my

own – that I was in fact Colin. This one person's comments provided me with a reason to believe that other readers might find the stories expressive of the participants' realities, evocative, and authentic.

A second opportunity to publicly present came through an invitation from Professor Andrew Sparkes to read one of the stories during his workshop on alternative forms of representation at an academic conference (Sparkes, 2003). This time I read *The long run* and, once again, the audience remained quiet and seemingly attentive. Although I feel unable as a novice researcher to judge the substantive contribution of this work, I feel that the invitation and acceptance of *The long run* by an experienced social science researcher suggests that this short story contributes in some way to our understanding of social life. Once again, in the context of the largely silenced mental health population (Repper & Perkins, 2003) this modest story perhaps makes a substantive contribution by presenting a rarely heard alternative (individual) account of exercise and mental health.

The substantive contribution of the four ethnographic fictions was further supported during the oral examination process for this thesis when both examiners responded positively to the inclusion of the short stories. To my surprise, their comments did not question the presence of ethnographic fictions within the case studies but instead asked why the stories had not been developed further in order to tell more of each participant's story. The examiners, it seemed, had found the stories to have personal impact while expressing each participant's reality in a meaningful way. A weakness of these short stories, perhaps, is that they are too short! Longer stories may improve coherence through providing greater background information on each participant, increase fairness through the inclusion of other's voices, and improve authenticity by developing the life of each participant in greater depth.

Insightfulness is a criteria which I, as the writer of these stories, struggle to assess. In terms of originality and innovation, I am aware of no other research in the field of physical activity and mental health which has been presented in the form of ethnographic fictions which foreground the participants' own stories. The question of whether these stories about an "other" result in greater comprehension and insight into the reader's own life is up to each individual reader to decide. From a personal point of view, I feel that although the stories themselves have not necessarily resulted in greater comprehension and insight into my own life, the process of *doing* this research – of studying and coming to know the experiences of Ben, Colin, Mark, and Shaun –

certainly has. The ethnographic fictions presented here, I find, are the most effective way to communicate to others what I have come to know and understand about the participants (and about the relationships between physical activity and mental health) through doing this research.

The final and to my mind the most powerful feedback that I have received regarding the ethnographic fictions occurred following a presentation I gave at a carer's conference organised by Buckinghamshire NHS Trust in April 2004. The audience consisted of around one hundred carers – predominantly relatives of people with severe and enduring mental health problems. During this talk, I provided some general background to the potential of physical activity for people with serious mental health problems, discussed the seven-stage sequence model, and "performed" *The future's looking bright*. While the whole talk was apparently well-received, it was the ethnographic fiction which seemed to reach the audience in the most direct and powerful way. The words of one lady, the mother of a young man with severe and enduring mental health problems, offer perhaps the most persuasive support for the impact, expression of a reality, evocation, and authenticity of *The future's looking bright:* "Thank you for the story. I was listening to it with tears in my eyes, and thinking of my son. You could have just swapped my son's name in there. It was so him."

8.2 A FINAL INTERPRETATION

In terms of a final interpretation of this research I would like to take a step back from the detailed, up-close logic suggested by the term *analysis* to discuss more openly my *feelings* on the place of physical activity in the lives of Ben, Colin, Mark, and Shaun. My comments here are, therefore, speculative and are based to a large extent on information originating from those who have actually experienced severe and enduring mental illness. I offer these thoughts by way of a broad overview; as a possible antidote to the 'not being able to see the wood for the trees' affliction. To some extent, these comments confound the issues raised thus far by providing an alternative to the more straightforward explanations already offered. This, according to Wolcott, is no bad thing: "Good qualitative research *ought* to confound issues, revealing them in their complexity rather than reducing them to simple explanation" (2001; p.36).

The accounts I have provided are from my own perspective – no matter how much I have attempted to base my interpretations on the data, they remain *my*

interpretations. The accounts come, not from a person who has experienced schizophrenia, but a person with an academic background where scientific knowledge tends to be valued over other forms (see Sparkes, 2002). As previously discussed, my perspective is, to some extent, in line with biomedical science where *cures* are sought in order to return an 'unwell' individual to a 'normal, healthy existence' (see Miller & Crabtree, 2000). This perspective makes little acknowledgement of the socially constructed nature of mental disorder where the single most disabling factor is often stigmatisation by society as a whole (US DHHS, 1999) and sufferers tend to be judgmentally viewed as *deficient* rather than *different* (Yardley, 1999). Yardley (1999) provides an example of the recognised influence of socio-cultural factors on obesity which leads me to question to what extent similar factors might affect mental health problems. Chadwick, a person recovering from schizophrenia, raises some important issues concerning the effect of social systems on the occurrence of mental health problems:

> Society (and even science itself) is importantly cemented not only by faith and trust but by traditions, clichés and shared biases. Try and live beyond and outside them and one risks living in a void ... If, rebelliously, one tries to dig beneath to see 'bedrock truth', one risks either profound loneliness and depression, the label of psychopath or outright insanity. There therefore is a warning sign at the gate of 'The Garden of Answers', which reads: 'See reality and suffer.' (Chadwick, 1997a, p.113)

I am concerned that, perhaps as a result of my background and perspective, the accounts thus far have not given sufficient credence to these difficult-to-measure relationships. To some extent, I have presented a perspective typical of the mental health profession: that *treatment given to* individuals (primarily in the form of medication) results in improved mental health and that *things they did themselves* (i.e., physical activity) were, at best, the icing on the treatment cake (see Donaghy, 2003). Put another way, it was what was done *to* them that was significant as opposed to any individual factors that were personally controlled.

Reflecting now, I am drawn to question this perspective in the context of recovery. Was it really the case that physical activity was merely an addition to existing treatment or already improving mental health? Returning to the data, it is clear from Simon's comments that football held an important place in Shaun's life even while he was hospitalised during an acute phase of schizophrenia:

> Even in that secure unit (Shaun) would keep himself to himself, wouldn't say anything. But when I asked if he wanted a game of football he'd go out and play a game. That was the only way he expressed himself. That was the only thing he would do to interact with anyone.

Likewise, Susan noted the role of running in Ben's ability to cope with and manage the most debilitating aspect of his illness, an anxiety attack: "His panic attacks continue generally when running … but he is able to continue running through the attack." In contrast to the uncontrolled attacks lasting as long as eight hours discussed in chapter five, Ben's ability to "run through" an attack can be seen as an effective strategy in returning to a healthy, functioning, day-to-day lifestyle. Perhaps the real power and potential of physical activity and sport, in the context of severe and enduring mental illness, was best captured by Colin's succinct remark: "If I didn't play football or have any music I don't think I'd be here today."

My discussion and study of these participants suggests that, with the possible exception of Mark, exercise has been profoundly important in their mental health improvements. Exercise has been their thing. Physical activity seems to have been something to which great significance has been attached by the participants themselves both directly (in terms of *doing* exercise itself) and indirectly (in terms of associated benefits such as social relations, physical health, and taking control of life). Two points, which link to discussions presented by Chadwick (1997a, 1997b), are important here. First, the individual is heavily implicated in their own success. This point has been raised before by Walton (2001) who draws on Liebrich (1999) in suggesting that "people are more than their illness, that individuals recover, and that they have a large part to play in their recovery" (p. 283). Factors such as exercise history, being highly motivated, taking control of personal well-being, and actually wanting to recover are highly relevant to progress. Second, and critically, recovery needs both a strategy *and* an incentive. Each person, it seems, needs a *reason* to recover as well as a *means* to recover. For Ben, Colin, and Shaun, physical activity might well have been both.

What, then, is important in recovery? In Chadwick's experience, "hope was as important as any pill" (1997a, p. 47). Hope was also a critical factor for Walton, who noted that "participants maintained a hopeful state of mind and held up for themselves goals and dreams to which they felt they could aspire" (2001; p. 287). Likewise, humour and a sense of perspective are likely to be important; Chadwick remembered how "I thought I might be the messiah – but laughter prevented it" (1997a, p. 145). In

short, it is a positive, hopeful, and optimistic focus – as opposed to a negative focus on illness, disorder, and problems – that is most likely to lead to mental health improvement. In Chadwick's words:

> One can indeed be too portentous about schizophrenic illness. It is true that this group of conditions can *kill* people – but of course so do mountains kill climbers. However if, as a climber, one is forever thinking of this fact (e.g. 'this peak has claimed three lives this year' or 'there's been a death on this mountain every year for the last four years'), one's capacities and confidence are greatly undermined. One has to have an attitude and 'Self talk' that breeds realistic resolve and strengthens will. Forever harping on about disasters, dangers, deficits and dysfunctions does *not* encourage the strength needed to overcome the problems that present themselves." (Chadwick, 1997a, p. 23)

My involvement with the exercise groups at Redview Lane and my study of Ben, Colin, Mark, and Shaun, suggest that hope, positive thinking, optimism, and humour *are* components of exercise sessions for these individuals. I saw people laughing, striving, planning, and anticipating good things *despite* the difficulties and challenges that their current conditions present. In the better moments, the problems of the illness seemed to disappear – they became factors in the eyes of others rather than the eyes of the individuals themselves. These positive moments are significant and, perhaps, link to the experience of some kind of benefit – even during the adversity of illness. Affleck and Tennen (1996), for example, discuss the strengthening of relationships with family and friends, positive personality change (such as the development of greater patience, tolerance, empathy, and courage), and life priority changes as a result of experiencing serious illness.

These ideas are difficult to 'show' under the philosophies and methods of biomedical science. Many of these insights are gained through *experiencing* in the fullest possible sense; in Chadwick's case, this was personal experience of mental illness, in my case, it was through coming to know and study the experiences of four individuals with mental illness. The outcome of this, for me, is a strong emphasis on the value of *individual's experience*. Rather than standardised treatment protocols resulting in predictable responses, unpredictable factors are likely to be of critical importance in terms of an individual's recovery. Chadwick's belief in the power of these unexpected events, acting as "fresh starts" and being "disproportionately helpful" have led him to question the modern-day reliance on evidence based medicine:

> It could indeed be that the scientific scenario of 'demonstrably effective procedures' and 'empirically confirmed fact' so characteristic of evidence based medicine is not all there is to helping recovering psychotic people and indeed may not even be the most important thing at all. At the individual level, the unexpected and the coincidental can be the most powerful catalysts of health (Chadwick, 1997b, p. 583).

A complete reliance on traditional scientific approaches risks missing some of the most important factors in the recovery from serious and debilitating mental health problems. Perhaps the most valuable and important findings can *only* be gathered by listening to, and trusting, the participants' own stories – what do *they* have to gain by being anything other than honest? Should not *participant* interpretations be valued in their own right being that they (rather than the researcher) have experienced mental illness? Believing only what we can measure, show, support, and represent scientifically risks missing the powerful potential of unexpected or coincidental factors in triggering and facilitating long-term mental health improvement. Physical activity *has* provided these kinds of experiences for Ben, Colin, Mark, and Shaun – and they *are* recovering.

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APPENDICES

Appendix 1a: Information sheet for cardiac study participants

UNIVERSITY OF BRISTOL

Professor Ken Fox
Head of Department

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Priory House, 8 Woodland Road
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Telephone: 0117 928 8647
Email: David.Carless@bristol.ac.uk

TAKING PART IN RESEARCH
PATIENT INFORMATION SHEET

Study title: Recovery in cardiac rehabilitation

You are invited to take part in a research project carried out by the Department of Exercise and Health at the University of Bristol. It is important to understand why the project will be done and what is involved before you decide. Please take time to read the following information carefully and discuss it with friends or relatives if you wish. Ask us if there is anything you do not understand or if you would like more information.

Experiencing a heart attack has effects on your physical health and also your mental well-being. Fortunately, cardiac rehabilitation is very effective at helping you return to physical health and promoting your mental well-being and how you feel. However, we need to know more about how a heart attack effects people mentally in order to improve rehabilitation programmes. Therefore this research aims to develop our understanding of the mental difficulties that face heart attack patients and how they can be helped to overcome these difficulties and make a full return to normal life.

It is up to you to decide whether to take part in this research. If you decide to take part you will be given this information sheet to keep and be asked to sign a consent form. You have the right to decline participation. Even if you decide to participate you are free to withdraw from the study at any time without stating the reason. In both cases you will not experience any displeasure or penalty and your normal care will not be affected.

If you agree to participate in the project:

- You will be visited during your time in hospital and asked to complete some questionnaires which ask simple questions about you and how you are feeling
- We will arrange to meet with you a few weeks after you have left hospital for you to complete these questionnaires again so we can see how you might have changed during rehabilitation

We will carry out these questionnaires at the hospital or at your home, whichever is more convenient for you. We will not access your medical records - all we need is your contact details. All data from the research including your contact details will remain confidential and will be stored in password-secured computers in the University of Bristol. All your questionnaire responses will be coded and any published report will not identify you. Only people directly involved in the project will have access to data.

Should any problems arise during the research study you can contact the person below at anytime:

David Carless
Exercise and Health Sciences, 8 Woodland Rd, Bristol BS8 1TN.
Tel: (0117) 928 8647. Email: David.Carless@bristol.ac.uk

If you have any doubts regarding the study or your participation you can contact in confidence the Secretary of Research Ethics Committee:

Mrs Naazneen Nathoo, UBHT Ethics Committee Secretary, United Bristol Healthcare Trust, Trust Headquarters, Marlborough Street, Bristol BS1 3NU.
Tel: (0117) 928 3613.

Thank you very much for your help.

Appendix 1b: Consent form for cardiac study participants

UNIVERSITY OF BRISTOL

Professor Ken Fox
Head of Department

Department of Exercise and Health Sciences
Priory House, 8 Woodland Road
Bristol BS8 1TN
Telephone: 0117 928 8647
Email: David.Carless@bristol.ac.uk

Centre Number:

Study Number: E4679

Patient Information Number for this trial:

CONSENT FORM

Project title: Recovery in cardiac rehabilitation

Name of Researcher: David Carless.

Name of independent person: Mrs Naazneen Nathoo. (Tel: 0117 9283613)

Please initial box

1. I confirm that I have read and understand the information sheet for the above study ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time without my medical care or legal rights being affected. ☐
3. I agree to take part in the above study. ☐

Name of patient	Date	Signature
Name of person taking consent (if different from researcher)	Date	Signature
David Carless Researcher	Date	Signature

1 for patient; 1 for researcher; 1 to be kept with hospital notes

CARDIAC REHABILITATION QUESTIONNAIRE

We are trying to learn more about how people may be helped to recover from heart problems. This questionnaire asks some questions about ***your*** feelings and beliefs. Your answers will help us better understand what people experience after heart problems.

All of the questions simply ask you to circle around the answer that best describes you. There are no right or wrong answers. Do not feel that you need to think too long about each answer – usually the first answer that comes into your head is the most accurate.

This questionnaire is anonymous and all the responses you give will be treated as completely CONFIDENTIAL.

Researcher: David Carless
University of Bristol
Exercise and Health Sciences Department
8 Woodland Road, Bristol BS8 1TN
Tel: 0117 954 6383

Thank you very much for your help.

Code:

Your date of birth: ___/___/19____ **Sex** (please circle): MALE / FEMALE

Which of the following have you experienced? (please tick any that apply)
☐ Heart attack ☐ Bypass surgery ☐ Angioplasty ☐ Angina

When were you **first** treated in hospital for a heart problem? Month: _____Year: _____

PART ONE:

Below are five statements with which you may agree or disagree. Using the scale from 1 to 7 indicate your agreement with each item by circling the appropriate number.

The scale is: 1=strongly disagree, 2=disagree, 3=slightly disagree, 4=neither agree or disagree, 5=slightly agree, 6=agree, 7=strongly agree.

	Strongly Disagree			Neither agree nor disagree			Strongly Agree
In most ways my life is close to my ideal	1	2	3	4	5	6	7
The conditions of my life are excellent	1	2	3	4	5	6	7
I am satisfied with my life	1	2	3	4	5	6	7
So far I have got the important things I want in life	1	2	3	4	5	6	7
If I could live my life over, I would change almost nothing	1	2	3	4	5	6	7

Please turn over to part two…

PART TWO:

The following questionnaire looks at your feelings. Please circle the phrase for each item that best describes how you have felt *since your heart problem started.*

I feel tense or wound up	*most of the time*	*a lot of the time*	*occasionally*	*not at all*
I feel as if I am slowed down	*nearly all the time*	*very often*	*sometimes/ from time to time*	*not at all*
I still enjoy the things used to enjoy	*definitely as much*	*not quite as much*	*only a little*	*hardly at all*
I get a sort of frightened feeling, like 'butterflies' in the stomach	*not at all*	*occasionally*	*quite often*	*very often*
I get a sort of frightened feeling as if something awful is about to happen	*very definitely & quite badly*	*yes, but not too badly*	*a little, but it doesn't worry me*	*not at all*
I've lost interest in my appearance	*definitely*	*I don't take as much care*	*I may not take as much as I should*	*I take just as much care care as ever*
I can laugh and see the funny side of things	*as much as I always could*	*not quite so much now*	*definitely not so much now*	*only occasionally*
I feel restless as if I have to be on the move	*very much indeed*	*quite a lot*	*not very much*	*hardly at all*
Worrying thoughts go through my mind	*a great deal of the time*	*a lot of the time*	*from time to time*	*only occasionally*
I look forward with enjoyment to things	*as much as I ever did*	*rather less than I used to*	*definitely less than I used to*	*hardly at all*
I feel cheerful	*not at all*	*not often*	*sometimes*	*most of the time*
I get sudden feelings of panic	*very often indeed*	*quite often*	*not very often*	*not at all*
I can sit at ease and feel relaxed	*definitely*	*usually*	*not often*	*not at all*
I can enjoy a good book or radio or TV programmes	*often*	*sometimes*	*not often*	*very seldom*

Thanks. Please turn over to part three….

PART THREE:

This section looks at how you feel about physical activity. By 'physical activity' we mean all individual exercise and all individual/team sports that people take part in for fun or to improve their fitness and health. Examples of these activities are running, swimming, weight lifting, cycling, dance, tennis, badminton, yoga, football, brisk walking.

In general, how many times a week do you take part in these types of physical activity?

0 1 2 3 4+

The following statements may or may not describe your feelings about physical activity. Please circle the appropriate letter or letters to indicate how well the statement describes **your feelings most of the time**. Give the answer which seems to describe how you **generally feel** about physical activity.

SD = Strong Disagree **D** = Disagree **U** = Uncertain **A** = Agree **SA** = Strongly Agree

1.	I look forward to physical activity.	SD	D	U	A	SA
2.	I wish there were a more enjoyable way to stay fit than vigorous physical activity.	SD	D	U	A	SA
3.	Physical activity is drudgery.	SD	D	U	A	SA
4.	I do not enjoy physical activity.	SD	D	U	A	SA
5.	Physical activity is vitally important to me.	SD	D	U	A	SA
6.	Life is so much richer as a result of physical activity.	SD	D	U	A	SA
7.	Physical activity is pleasant.	SD	D	U	A	SA
8.	I dislike the thought of doing regular physical activity.	SD	D	U	A	SA
9.	I would arrange or change my schedule to participate in physical activity.	SD	D	U	A	SA
10.	I have to force myself to participate in physical activity.	SD	D	U	A	SA
11.	To miss a day of physical activity is sheer relief.	SD	D	U	A	SA
12.	Physical activity is the high point in my day.	SD	D	U	A	SA

Thanks very much ... please turn over to part four.

PART FOUR

In this section you will find statements people might use to describe their attitudes, opinions, interests and other personal feelings.

Each statement can be answered TRUE or FALSE. Read the statement and decide which one **best describes you**. Try to describe the way you USUALLY or generally act or feel, not just how you are feeling right now.

To answer you only need to circle either **T** or **F** after each question. Here's an example:

	True	**False**
I understand how to fill out this questionnaire	T	F

- Read each statement carefully, but don't spend too much time deciding the answer.
- Please answer every statement even if you are not completely sure of the answer.
- Remember there are no right or wrong answers – just describe your **own** personal opinions and feelings.

		True	**False**
1.	I often try new things just for fun or thrills even if most people think it is a waste of time	T	F
2.	I usually am confident that everything will go well, even in situations that worry most people	T	F
3.	I am often moved deeply by a fine speech or poetry	T	F
4.	I often feel that I am the victim of circumstances	T	F
5.	I can usually accept other people as they are, even when they are very different from me	T	F
6.	I believe that miracles happen	T	F
7.	I enjoy getting revenge on people who hurt me	T	F
8.	Often when I am concentrating on something, I lose awareness of the passage of time	T	F
9.	Often I feel that my life has little purpose or meaning	T	F
10.	I like to find a solution to problems so that everyone comes out ahead	T	F
11.	I could probably accomplish more than I do, but I don't see the point in pushing myself harder than is necessary to get by	T	F
12.	I often feel tense and worried in unfamiliar situations, even when others feel there is little to worry about	T	F
13.	I often do things based on how I feel at the moment without thinking about how they were done in the past	T	F
14	I usually do things on my own rather than giving in to the wishes of other people	T	F
15.	I often feel so connected to the people around me that it is like there is no separation between us	T	F

16. I generally don't like people who have different ideas from me ..... T F

17. In most situations my natural responses are based on good habits that I have developed ..... T F

18. I would do almost anything legal in order to become rich and famous, even if I would lose the trust of many old friends ..... T F

19. I am much more reserved and controlled than most people ..... T F

20. I often have to stop what I am doing because I start worrying about what might go wrong ..... T F

21. I like to discuss my feelings openly with friends instead of keeping them to myself ..... T F

22. I have less energy and get tired more quickly than most people ..... T F

23. I am often called "absent minded" because I get so wrapped up in what I am doing that I lose track of everything else ..... T F

24. I seldom feel free to choose what I want to do ..... T F

25. I often consider another person's feelings as much as my own ..... T F

26. Most of the time I would prefer to do something a little risky (like riding in a car over steep hills and sharp turns) rather than stay quiet and inactive for a few hours ..... T F

27. I often avoid meeting strangers because I lack confidence with people I don't know ..... T F

28. I like to please other people as much as I can ..... T F

28. I like old "tried and true" ways of doing things much better than trying "new and improved" ways ..... T F

30. Usually I am not able to do things according to their priority of importance to me because of lack of time ..... T F

31. I often do things to help protect animals and plants from extinction ..... T F

32. I often wish that I was smarter than everyone else ..... T F

33. It gives me pleasure to see my enemies suffer ..... T F

34. I like to be very organised and set up rules for people whenever I can ..... T F

35. It is difficult for me to keep the same interests for a long time because my attention often shifts to something else ..... T F

36. Repeated practice has given me good habits that are stronger than most momentary impulses or persuasion ..... T F

37. I am usually so determined that I continue to work long after other people have given up ..... T F

38. I am fascinated by the many things in life that cannot be scientifically explained . T F

39. I have many bad habits that I wish I could break ..... T F

40. I often wait for someone else to provide a solution to my problems ..... T F

41. I often spend money until I run out of cash or get into debt from using too much credit ..... T F

42. I think I will have very good luck in the future ..... T F

43. I recover more slowly than most people from minor illnesses or stress ..... T F

44. It wouldn't bother me to be alone all the time ..... T F

45. Often I have unexpected flashes of insight or understanding while relaxing ..... T F

46. I don't care very much whether other people like me or the way I do things ..... T F

47. I usually try to get just what I want for myself because it is not possible to satisfy everyone anyway ..... T F

48. I have no patience with people who don't accept my views ..... T F

49. I don't seem to understand most people very well ..... T F

50. You don't have to be dishonest to succeed in business ..... T F

51. I sometimes feel so connected to nature that everything seems to be part of one living organism ..... T F

52. In conversations I am much better as a listener than a talker ..... T F

53. I lose my temper more quickly than most people ..... T F

54. When I have to meet a group of strangers, I am more shy than most people .... T F

55. I am more sentimental than most people ..... T F

56. I seem to have a "sixth sense" that sometimes allows me to know what is going to happen ..... T F

57. When someone hurts me in any way, I usually try to get even ..... T F

58. My attitudes are determined largely by influences outside my control ..... T F

59. Each day I try to take another step toward my goals ..... T F

60. I often wish I was stronger than everyone else ..... T F

61. I like to think about things for a long time before I make a decision ..... T F

62. I am more hard-working than most people ..... T F

63. I often need naps or extra rest periods because I get tired so easily ..... T F

64. I like to be of service to others ..... T F

65. Regardless of any temporary problem I have to overcome, I always think it will turn out well ..... T F

66. It is hard for me to enjoy spending money on myself, even when I have saved plenty of money ..... T F

67. I usually stay calm and secure in situations most people would find physically dangerous ..... T F

68. I like to keep my problems to myself ..... T F

69. I don't mind discussing my personal problems with people whom I have known briefly or slightly ..... T F

70. I like to stay at home better than to travel or explore new places ..... T F

71. I do not think it is smart to help weak people who cannot help themselves ..... T F

72. I cannot have any peace of mind if I treat other people unfairly, even if they are unfair to me ..... T F

73. People will usually tell me how they feel ..... T F

74. I often wish I could stay young forever ..... T F

75. I am usually more upset than most people by the loss of a close friend ..... T F

76. Sometimes I have felt like I was part of something with no limits or boundaries in time and space ..... T F

77. I sometimes feel a spiritual connection to other people that I cannot explain in words ..... T F

78. I try to be considerate of other people's feelings, even when they have been unfair to me in the past ..... T F

79. I like it when people can do whatever they want without strict rules and regulations ..... T F

80. I would probably stay relaxed and outgoing when meeting a group of strangers, even if I were told that they are unfriendly ..... T F

81. Usually I am more worried than most people that something might go wrong in the future ..... T F

82. I usually think about all the facts in detail before I make a decision ..... T F

83. I feel it is more important to be sympathetic and understanding of people than to be practical and tough-minded ..... T F

84. I often feel a strong sense of unity with all the things around me ..... T F

85. I often wish I had special powers like superman ..... T F

86. Other people control me too much ..... T F

87. I like to share what I have learned with other people ..... T F

88. Religious experiences have helped me understand the real purpose of my life .. T F

89. I often learn a lot from people ..... T F

90. Repeated practice has allowed me to become good at many things that help me to be successful ..... T F

91. I am usually able to get other people to believe me, even when I know what I am saying is exaggerated or untrue ..... T F

92. I need much extra rest to recover from minor illnesses or stress ..... T F

93. I know that there are principles for living that no one can violate without suffering in the long run ..... T F

94. I don't want to be richer than everyone else ..... T F

95. I would gladly risk my own life to make the world a better place ..... T F

96. Even after thinking about something for a long time, I have learned to trust my feelings more than my logical reasons ..... T F

97. Sometimes I have felt my life was being directed by a spiritual force greater than any human being ..... T F

98. I usually enjoy being mean to anyone who has been mean to me ..... T F

99. I have a reputation for being someone who is very practical and does not act on emotion ..... T F

100. It is easy for me to organise my thoughts while talking to someone ..... T F

101. I often react so strongly to unexpected news that I say or do things that I regret T F

102. I am strongly moved by sentimental appeals (like when asked to help crippled children) ..... T F

103. I usually push myself harder than most people do because I want to do as well as I possibly can ..... T F

104. I have so many faults that I don't like myself very much ..... T F

105. I have too little time to look for long-term solutions to my problems ..... T F

106. I often cannot deal with problems because I just don't know what to do ..... T F

107. I often wish I could stop the passage of time ..... T F

108. I hate to make decisions based only on my first impressions ..... T F

109. I prefer spending money rather than saving it ..... T F

110. I can usually do a good job of stretching the truth to tell a funnier story or play a joke on someone ..... T F

111. Even after there are problems in a friendship, I nearly always try to keep it going anyway ..... T F

112. If I am embarrassed or humiliated, I get over it very quickly ..... T F

113. It is extremely difficult for me to adjust to my usual way of doing things because I get so tense, tired, or worried ..... T F

114. I usually demand very good practical reasons before I am willing to change my old ways of doing things ..... T F

115. I need a lot of help from other people to train me to have good habits ..... T F

116. I think that extra-sensory perception (ESP, like telepathy or precognition) is really possible ..... T F

117. I would like to have warm close friends with me most of the time ..... T F

118. I often keep trying the same thing over and over again, even when I have not had much success in the past ..... T F

119. I nearly always stay relaxed and carefree, even when nearly everyone else is fearful ..... T F

120. I find sad songs and movies pretty boring ..... T F

121. Circumstances often force me to do things against my will ..... T F

122. It is hard for me to tolerate people who are different from me ..... T F

123. I think that most things that are called miracles are just chance ..... T F

124. I would rather be kind than get revenge when someone hurts me ..... T F

125. I often become so fascinated with what I'm doing that I get lost in the moment – like I'm detached from time and place ..... T F

126. I do not think I have a real sense of purpose for my life ..... T F

127. I try to co-operate with others as much as possible ..... T F

128. I am satisfied with my accomplishments, and have little desire to do better ..... T F

129. I often feel tense and worried in unfamiliar situations, even when others feel there is no danger at all ..... T F

130. I often follow my instincts, hunches, or intuition without thinking through all the details ..... T F

131. Other people often think that I am too independent because I don't do what they want ..... T F

132. I often feel a strong spiritual or emotional connection with the people around me T F

133. It is usually easy for me to like people who have different values from me ..... T F

134. I try to do as little work as possible, even when other people expect more of me T F

135. Good habits have become "second nature" to me – they have become automatic and spontaneous actions nearly all the time ..... T F

136. I don't mind the fact that other people often know more than I do about something ..... T F

137. I usually try to imagine myself "in other people's shoes", so I can really understand them ..... T F

138.	Principles like fairness and honesty have little role in some aspects of my life ..	T	F
139.	I am better at saving money than most people	T	F
140.	I seldom let myself get upset or frustrated: when things don't work out, I simply move on to other activities	T	F
141.	Even when most people feel it is not important, I often insist on things being done in a strict and orderly way	T	F
142.	I feel comfortable and sure of myself in almost all social situations	T	F
143.	My friends find it hard to know my personal feelings because I seldom tell them about my private thoughts	T	F
144.	I hate to change the way I do things, even if many people tell me there is a new and better way to do it	T	F
145.	I think it is unwise to believe in things that cannot be explained scientifically ...	T	F
146.	I like to imagine my enemies suffering	T	F
147.	I am more energetic and tire less easily than most people	T	F
148.	I like to pay close attention to details in everything I do	T	F
149.	I often stop what I am doing because I get worried, even when my friends tell me everything will go well	T	F
150.	I often wish I was more powerful than everyone else	T	F
151.	I usually am free to choose what I will do	T	F
152.	Often I become so involved in what I am doing that I forget where I am for a while	T	F
153.	Members of a team rarely get their fair share	T	F
154.	Most of the time I would prefer to do something risky (like hang-gliding or parachute jumping) rather than having to stay quiet and inactive for a few hours	T	F
155.	Because I often spend too much money on impulse, it is hard for me to save money – even for special plans like a holiday	T	F
156.	I don't go out of my way to please other people	T	F
157.	I am not shy with strangers	T	F
158.	I often give in to the wishes of friends	T	F
159.	I spend most of my time doing things that seem necessary but not really important to me	T	F
160.	I don't think religious or ethical principles about what is right and wrong should have much influence in business decisions	T	F
161.	I often try to put aside my own judgements so that I can better understand what other people are experiencing	T	F

162.	Many of my habits make it hard for me to accomplish worthwhile goals	T	F
163.	I have made real personal sacrifices in order to make the world a better place – like trying to prevent war, poverty, and injustice	T	F
164.	I never worry about terrible things that might happen in the future	T	F
165.	I almost never get so excited that I lose control of myself	T	F
166.	I often give up a job if it takes much longer than I thought it would	T	F
167.	I prefer to start conversations, rather than waiting for others to talk to me	T	F
168.	Most of the time I quickly forgive anyone who does me wrong	T	F
169.	My actions are determined largely by influences outside my control	T	F
170.	I often have to change my decisions because I had a wrong hunch or mistaken first impression	T	F
171.	I prefer to wait for someone else to take the lead in getting things done	T	F
172	I usually respect the opinions of others	T	F
173.	I have had experiences that made my role in life so clear that I felt very excited and happy	T	F
174.	It is fun for me to buy things for myself	T	F
175.	I believe that I have experienced extra-sensory perception myself	T	F
176.	I believe that my brain is not working properly	T	F
177.	My behaviour is strongly guided by certain goals that I have set for my life	T	F
178.	It is usually foolish to promote the success of other people	T	F
179.	I often wish I could live forever	T	F
180.	I usually like to stay cool and detached from other people	T	F
181.	I am more likely to cry at a sad movie than most people	T	F
182.	I recover more quickly than most people from minor illnesses or stress	T	F
183.	I often break rules and regulations when I think I can get away with it	T	F
184.	I need much more practice in developing good habits before I will be able to trust myself in many tempting situations	T	F
185.	I wish other people didn't talk as much as they do	T	F
186.	Everyone should be treated with dignity and respect, even if they seem to be unimportant or bad	T	F
187.	I like to make quick decisions so I can get on with what has to be done	T	F
188.	I usually have good luck in whatever I try to do	T	F

189. I am usually confident that I can easily do things that most people would consider dangerous (such as driving a car fast on a wet or icy road) ..... T F

190. I see no point on continuing to work on something unless there is a good chance of success ..... T F

191. I like to explore new ways of doing things ..... T F

192. I enjoy saving money more than spending it on entertainment or thrills ..... T F

193. Individual rights are more important than the needs of any group ..... T F

194. I have had personal experiences in which I felt in contact with a divine and wonderful spiritual power ..... T F

195. I have had moments of great joy in which I suddenly had a clear, deep feeling of oneness with all that exists ..... T F

196. Good habits make it easier for me to do things the way I want ..... T F

197. Most people seem more resourceful than I am ..... T F

198. Other people and conditions are often to blame for my problems ..... T F

199. It gives me pleasure to help others, even if they have treated me badly ..... T F

200. I often feel like I am part of the spiritual force on which all life depends ..... T F

201. Even when I am with friends, I prefer not to "open up" very much ..... T F

202. I usually can stay "on the go" all day without having to push myself ..... T F

203. I **nearly always** think about all the facts in detail before I make a decision, even when other people demand a quick decision ..... T F

204. I am not very good at talking myself out of trouble when I am caught doing something wrong ..... T F

205. I am more of a perfectionist than most people ..... T F

206. Whether something is right or wrong is just a matter of opinion ..... T F

207. I think my natural responses now are usually consistent with my principles and long-term goals ..... T F

208. I believe that all life depends on some spiritual order or power that cannot be completely explained ..... T F

209. I think I would stay confident and relaxed when meeting strangers, even if I were told they are angry at me ..... T F

210. People find it easy to come to me for help, sympathy, and warm understanding T F

211. I am slower than most people to get excited about new ideas and activities .... T F

212. I have trouble telling a lie, even when it is meant to spare someone else's feelings ..... T F

213. There are some people I don't like ..... T F

214. I don't want to be more admired than everyone else ..... T F

215. Often when I look at an ordinary thing, something wonderful happens – I get the feeling that I am seeing it fresh for the first time ..... T F

216. Most people I know look out only for themselves, no matter who else gets hurt T F

217. I usually feel tense and worried when I have to do something new and unfamiliar T F

218. I often push myself to the point of exhaustion or try to do more than I really can T F

219. Some people think I am too stingy or tight with my money ..... T F

220. Reports of mystical experiences are just wishful thinking ..... T F

221. My will power is too weak to overcome very strong temptations, even if I know I will suffer as a consequence ..... T F

222. I hate to see anyone suffer ..... T F

223. I know what I want to do in my life ..... T F

224. I regularly take time to consider whether what I am doing is right or wrong ..... T F

225. Things often go wrong for me unless I am very careful..... T F

226. If I am feeling upset, I usually feel better around friends than when left alone ... T F

227. I don't think it is possible for one person to share feelings with someone else who hasn't had the same experiences ..... T F

228. It often seems to other people like I am in another world because I am so completely unaware of things going on around me ..... T F

229. I wish I were better looking than everyone else ..... T F

230. I have lied a lot in this questionnaire ..... T F

231. I usually stay away from social situations where I would have to meet strangers, even if I am assured they will be friendly ..... T F

232. I love the blooming of flowers in the spring as much as seeing an old friend again ..... T F

233. I usually look at a difficult situation as a challenge or opportunity ..... T F

234. People involved with me have to learn how to do things my way ..... T F

235. Dishonesty only causes problems if you get caught ..... T F

236. I usually feel much more confident and energetic than most people, even after minor illnesses or stress ..... T F

237. I like to read everything when I am asked to sign any papers ..... T F

238. When nothing new is happening, I usually start looking for something that is thrilling or exciting ..... T F

239. Sometimes I get upset ..... T F

240. Occasionally I talk about people behind their backs ..... T F

Thank you very much for taking the time to complete this questionnaire.

Appendix 3: Cardiac follow-up questionnaire

PART ONE: GENERAL

Here are some general questions we would like you to answer to give us some information on your rehabilitation over the past few months.

For questions 1 and 2 please circle **ONE** answer to each question:

1. Compared to **before your heart attack**, how would you rate your health now?

Much better	*Somewhat better*	*About the same*	*Somewhat worse*	*Much worse*

2. Compared to **when you left hospital**, how would you rate your health now?

Much better	*Somewhat better*	*About the same*	*Somewhat worse*	*Much worse*

From questions 3-5 please tick **ONE** box next to the statement that is **most like you**:

3. Smoking:

a. *I have never been a smoker* ☐

b. *I used to smoke, but gave up before having a heart problem* ☐

c. *I was a smoker before my heart attack, but quit smoking when I had my heart attack* ☐

d. *I am a smoker and have tried unsuccessfully to quit smoking* ☐

e. *I am a smoker and have not tried to quit smoking* ☐

4. Diet:

Following my heart attack:

a. *I was not advised to change my diet* ☐

b. *I was advised to change my diet but I do not want to change how I eat* ☐

c. *I would like to change to a healthier diet, but so far I have been unsuccessful* ☐

d. *I have changed my diet to follow the advice I was given to a small extent* ☐

e. *I have changed my diet to completely follow the advice I was given* ☐

5. Physical activity: (this includes sport, exercise and any activities you may do to keep fit)

a. *I have always regularly exercised independently and still do now* ☐

b. *I exercised regularly before my heart attack but now only at the rehabilitation group* ☐

c. *I exercised regularly before my heart attack but now do no or very little exercise* ☐

d. *I didn't exercise before my heart attack but do now away from the rehabilitation group* ☐

e. *I didn't exercise before my heart attack but do now only at the rehabilitation group* ☐

6. If you **do not** take part in a rehabilitation group what are the reasons for this?
(please tick <u>any</u> that apply)

a. Transport/parking difficulties	☐	*b. I exercise on my own*	☐
c. I don't feel well enough to exercise	☐	*d. Other reason (please give details)*	☐

.....

PART TWO: BARRIERS TO PHYSICAL ACTIVITY

What are the things that have **stopped** you from taking part in physical activity since your heart attack? (Please tick **<u>all</u>** boxes that you feel apply to you)

Nothing, I'm keen to be active whatever	☐	I'm unsure of the benefits to me	☐
To me activity is quite boring	☐	I'm embarrassed about my body shape	☐
I don't have the right clothing	☐	I feel sore or ache after activity	☐
I'm not really the active type	☐	There's no-one to be active with	☐
I have no time	☐	I'm too overweight to be active	☐
My social life would suffer	☐	There are no facilities nearby	☐
It costs too much	☐	I'm unsure of what I have to do	☐
I wouldn't enjoy it	☐	The bad weather puts me off	☐
I have no energy to be active	☐		

If you have any comments on your <u>own</u> experiences of physical activity and how it has fitted in with your rehabilitation please feel free to use the space below...

.....

.....

.....

PART THREE: SATISFACTION WITH YOUR LIFE

Below are five statements with which you may agree or disagree. Using the scale from 1 to 7 indicate your agreement with each item by circling the appropriate number.

The scale is: 1=strongly disagree, 2=disagree, 3=slightly disagree, 4=neither agree or disagree, 5=slightly agree, 6=agree, 7=strongly agree.

	Strongly Disagree			Neither agree nor disagree			Strongly Agree
In most ways my life is close to my ideal	1	2	3	4	5	6	7
The conditions of my life are excellent	1	2	3	4	5	6	7
I am satisfied with my life	1	2	3	4	5	6	7
So far I have got the important things I want in life	1	2	3	4	5	6	7
If I could live my life over, I would change almost nothing	1	2	3	4	5	6	7

PART FOUR: HOW YOU FEEL

The following questionnaire looks at your feelings. Please circle the phrase for each item that best describes how you have been feeling **during the past two weeks**.

I feel tense or wound up	*most of the time*	*a lot of the time*	*occasionally*	*not at all*
I feel as if I am slowed down	*nearly all the time*	*very often*	*sometimes/ from time to time*	*not at all*
I still enjoy the things used to enjoy	*definitely as much*	*not quite as much*	*only a little*	*hardly at all*
I get a sort of frightened feeling, like 'butterflies' in the stomach	*not at all*	*occasionally*	*quite often*	*very often*
I get a sort of frightened feeling as if something awful is about to happen	*very definitely & quite badly*	*yes, but not too badly*	*a little, but it doesn't worry me*	*not at all*
I've lost interest in my appearance	*definitely*	*I don't take as much care*	*I may not take as much as I should*	*I take just as much care care as ever*
I can laugh and see the funny side of things	*as much as I always could*	*not quite so much now*	*definitely not so much now*	*only occasionally*
I feel restless as if I have to be on the move	*very much indeed*	*quite a lot*	*not very much*	*hardly at all*
Worrying thoughts go through my mind	*a great deal of the time*	*a lot of the time*	*from time to time*	*only occasionally*
I look forward with enjoyment to things	*as much as I ever did*	*rather less than I used to*	*definitely less than I used to*	*hardly at all*
I feel cheerful	*not at all*	*not often*	*sometimes*	*most of the time*
I get sudden feelings of panic	*very often indeed*	*quite often*	*not very often*	*not at all*
I can sit at ease and feel relaxed	*definitely*	*usually*	*not often*	*not at all*
I can enjoy a good book or radio or TV programmes	*often*	*sometimes*	*not often*	*very seldom*

PART FIVE: PHYSICAL ACTIVITY

This section looks at how you feel about **physical activity**. By 'physical activity' we mean all individual exercise and all individual/team sports that people take part in for fun of fitness and health. Examples of these activities are running, swimming, weight lifting, cycling, dance, tennis, badminton, yoga, football, brisk walking.

How many times a week do you currently take part in these types of physical activity? ***(please circle)***

0 1 2 3 4+

The following statements may or may not describe your feelings about physical activity. Please circle the appropriate letter or letters to indicate how well the statement describes **your feelings most of the time**. Give the answer which seems to describe how you **generally feel** about physical activity.

SD = Strong Disagree **D** = Disagree **U** = Uncertain **A** = Agree **SA** = Strongly Agree

1.	I look forward to physical activity.	SD	D	U	A	SA
2.	I wish there were a more enjoyable way to stay fit than vigorous physical activity.	SD	D	U	A	SA
3.	Physical activity is drudgery.	SD	D	U	A	SA
4.	I do not enjoy physical activity.	SD	D	U	A	SA
5.	Physical activity is vitally important to me.	SD	D	U	A	SA
6.	Life is so much richer as a result of physical activity.	SD	D	U	A	SA
7.	Physical activity is pleasant.	SD	D	U	A	SA
8.	I dislike the thought of doing regular physical activity.	SD	D	U	A	SA
9.	I would arrange or change my schedule to participate in physical activity.	SD	D	U	A	SA
10.	I have to force myself to participate in physical activity.	SD	D	U	A	SA
11.	To miss a day of physical activity is sheer relief.	SD	D	U	A	SA
12.	Physical activity is the high point in my day.	SD	D	U	A	SA

THANK YOU VERY MUCH FOR TAKING THE TIME TO COMPLETE THIS QUESTIONNAIRE!

Appendix 4a: Information sheet for mental health study participants

UNIVERSITY OF BRISTOL

Professor Ken Fox
Head of Department

Department of Exercise and Health Sciences
Priory House, 8 Woodland Road
Bristol BS8 1TN
Telephone: 0117 928 8647
Email: David.Carless@bristol.ac.uk

TAKING PART IN RESEARCH

INFORMATION SHEET

Study number: BA041

Study title: Physical activity and health

You are invited to take part in a research project carried out by the Department of Exercise and Health Science at the University of Bristol. It is important to understand why the project is being done and what is involved before you decide whether or not to take part. Please read the following information carefully and discuss it with friends or relatives if you wish. Ask us if there is anything you do not understand or if you would like more information.

Research shows that taking part in physical activity can have effects on people's mental health. However, at the moment we do not understand when, why and who physical activity might help. It is important that we try to answer these questions so that other people with mental health problems might benefit from taking part in physical activity. We are trying to answer these questions by interviewing people like yourself who take part in regular physical activity. The interview involves an informal talk with a researcher from the university who would like to find out about *your* experiences taking part in physical activity. The interview is not a test and you will be able to talk about the things that have been important for you. You will not be put under any obligation to answer the interview questions. We would also like to interview another person such as your key-worker, exercise leader, or a family member so we can better understand how physical activity fits into your life. These interviews will be tape-recorded and all the tapes will be destroyed at the end of the study.

Some general information:

1. All information collected about you during the course of the research will be kept strictly confidential. All your interview responses will be treated anonymously and will be stored in password-secured computers in the University of Bristol. Any published report will not identify you.
2. You may not experience any benefit from taking part in this research. However, information obtained from this study may help other people with mental health problems in the future.
3. It is up to you to decide whether to take part or not. If you decide to take part you will be given this information sheet to keep and be asked to sign a consent form. Even if you decide to take part you are free to withdraw from the study at any time without giving a reason. This will not affect your normal healthcare.

Should any problems arise during the research study you can contact the study co-ordinator at anytime: David Carless, Department of Exercise and Health Sciences, 8 Woodland Road, Bristol BS8 1TN. Telephone: (0117) 928 8647.

THANK YOU VERY MUCH FOR YOUR HELP.

Appendix 4b: Consent form for mental health study participants

UNIVERSITY OF BRISTOL

Professor Ken Fox
Head of Department

Department of Exercise and Health Sciences
Priory House, 8 Woodland Road
Bristol BS8 1TN
Telephone: 0117 928 8647
Email: David.Carless@bristol.ac.uk

Study Number: BA041

Patient Information Number for this trial:

CONSENT FORM

Study title: ***Physical activity and health***

Name of Researcher: David Carless.

Please initial each box

1. I confirm that I have read and understand the information sheet for the above study ☐

2. I understand that my participation is voluntary and that I am free to withdraw at any time without my medical care or legal rights being affected. ☐

3. I am willing to allow access to my records but understand that strict confidentiality will be maintained. ☐

4. I agree to take part in the above study. ☐

Name of participant	Date	Signature
Name of person taking consent (if different from researcher)	Date	Signature
David Carless Researcher	Date	Signature

1 for participant; 1 for researcher; 1 to be kept with notes

Appendix 5: Example semi-structured interview schedule

INTERVIEW SCHEDULE

A. Introduction: Prescription aspects

1. Tell me about your typical exercise session/s
   - *Mode, duration, sessions per week, intensity*

2. What exercise improvements have you made?
   - *What things can you do now that you couldn't before?*

3. What other kinds of exercise do you take part in?

4. Where do you exercise? Do you have a particular preference?
   - *Environment etc.*

B. History

5. Can you tell me about your physical activity background?
   - *How long have you been involved?*
   - *How much? Has this changed over the years?*
   - *Experience, link to health improvements?*

6. What exercise/sport involvement did you have in at school?
   - *Is this a resumption thing or a totally new experience?*

7. Is the exercise something that you continue or is it more of a stop/start thing?
   - *Examples (dates)? Consistency, link to clinical change?*

C. General psychological benefits

8. Tell me a little about how the exercise sessions affect you.
   - *Looking for unprompted thoughts*

9. How long has this been happening? Always or only sometimes?

10. In what ways has exercise changed the way you **feel** physically? How important is this?
    - *Body image, awareness, confidence type issues?*
    - *Is "the physical" important at all?*

11. Do you feel different during exercise, or is it after exercise?
    - *Do you "go somewhere else" during exercise – is it different then? Or is it only in resting afterwards that you feel better?*

12. How long do these differences last?
    - *Minutes, hours, days?*
    - *Does if affect you over the whole week, for example?*

13. Do you always experience the same kinds of feelings when you exercise?
    - *Is any variation random or is there a pattern?*

14. Do you experience this from any other activities or situations?
    - *i.e. is it unique to exercise?*

15. So why do you continue to exercise? What draws you to it?

16. Is it something you *have* to do (or *need* to do)? Or is it forced?

17. What things do you find make it hard for you to exercise regularly?

D. Mechanisms

18. Can you pin point what it is about exercise that affects the way you feel?

19. Are there particular things about exercise that you think help you? That you look forward to?
    - *Social, autonomy, escape, exertion, distraction, success, others?*

20. Can you tell me about any other people you exercise with? How do they affect you? Do you have much to do with them?

21. Tell me about what its like having "*a physio*" with you during exercise sessions.

22. Is this something you need or could handle exercicse alone? Has this changed over time?

23. Who organises your exercise activities? (Before, during, planning.) How do you feel about this? Is this similar to other areas of your life?
    - *i.e. is there a trend across different domains?*

24. How important is it to you how you do in the exercise sessions each day? (In terms of performance.)

25. Do you feel more skillful now in the exercises you take part in? How do you feel about that?

26. Do you picture yourself as an exerciser? How do you describe yourself to others?

27. Has exercise made you a "different person" in some way?

28. What would be different about you if you didn't exercise?

29. How do you see your exercise habits developing? What would be your ideal exercise involvement?

30. Are there problems with exercise for you?

31. How does exercise fit in with your lifestyle? Does it influence how other things affect you?

Appendix 6: Analysis tables accompanying case studies

Table 6.1a: Time ordered matrix of key events (Ben)

	Mental health	Treatment	Lifestyle
Before being unwell	• Mild mental health symptoms (depression, paranoid psychosis, anxiety) over 4 years	• Untreated	• Range of short-term employment • Married for 2 years (separated) • Keen runner (half-marathons)
7 years previous	• First recorded GP visit for feelings of paranoia • Improved after one month	• Anti-psychotic medication prescribed by GP • Short term course	• Employed full time • Living independently
6 years previous	• Serious mental health problems for several months (paranoia) • Diagnosed with "emerging psychosis with overlays of obsessional thoughts"	• Medication resumed, increased • Anti-depressant medication (for anxiety). Initially effective • Medication changed, increased and then stopped • Drug-free trial failed • Medication resumed	• Poor progress at work • Hospitalised for 6 weeks • Weight increased by over 5 stones
5 years previous	• Problems continue • Extremely anxious • Tremors, pacing and twitching movements • Admitted to hospital after self-harm • Extreme anxiety and desperation	• Medication increased • Prescribed procycidine • Medication changed to atypical anti-psychotic • Electro-convulsive therapy • Medication changed • Dose increased	• Hospitalised for 10 months • 2 weeks in residential unit
4 years previous	• Improved mental health • Variable mood, anxious	• Medication continues	• Hospitalised for further 10 months • Discharged from hospital and begins at Redview Lane
3 years previous	• Mental health worsens • Extreme agitation, paranoia, anxious • Continual anxiety attacks up to 8 hours	• Medication continues • Diagnosed with "partially treated schizophrenia complicated by obsessional thoughts or obsessive compulsive disorder"	• Stops attending Redview Lane • Hospitalised (short admission) • Resumes at Redview Lane
2 years previous	• Much improved mental state • Anxiety continues • Weekly panic attacks	• Medication changed to atypical anti-psychotic + SSRI anti-depressant (for anxiety)	• Begins physical activity • One to one gym sessions organised and run by *Catherine* • Also attends gym with family member • Still overweight
1 year previous	• "Feeling well" • Panic attacks continue	• Fortnightly psychology sessions begin – dealing with panic attack • Family therapy sessions • Medication continues	• Begins to attend gym alone • Running on treadmill • Working full time in kitchen at Redview Lane – taking on responsibility • Attending weight watchers (won trophy)
Present	• Panic attacks mainly occur on treadmill and while out running • Possibly a learnt physiological response? • Improved control of attacks – able to run through attack • Generally much improved mental health and well-being	• Medication continues • Happy with medication • Monthly psychology sessions	• Lost 5 stones (currently 17 stones) • Continues working at Redview Lane + voluntary work in community • Seeking full-time voluntary work • Joins 5-a-side football group • Completed half marathon

Table 6.1b: Life phase matrix (Ben)

	Before being unwell	Being unwell	Resumption of physical activity	Recovery
Well-being	"I was sort of out of touch with reality"	"Well it's a fear of a fear really. You're just frightened and you don't know why. Everything, everything becomes out of touch …."	"When I got the right medication I felt a lot better and the first time I was out running again I felt on top of the world like, I was actually back to what I used to be like doing running again."	"Now I've reached a point – in a way the illness has made me more conscious of life, and feel better about life, and how much life means."
Medication		"The medication was making me worse. It made me put on a lot of weight and I couldn't do any exercise anyway, I was so overweight. I went up to 21 stone."	"I was on the right medication, I felt better and I thought to myself, well, I'll get back into running again and keeping fit again."	"It's just having the right medication and the right frame of mind and exercising, you can totally get cured of a mental illness I reckon."
Physical activity	"I seen the marathons on telly, I thought I'll have a go at them… (Later that year) I did a 6 miler, (then) I done a few half marathons, (then) I did a few 20 milers."	"Then I had no interest in it (exercise) … for four years I didn't do anything – I went up to 21 stone."	"I suppose it (exercise) makes you face the problem head on. It makes you feel as though it's not that bad in the first place. There's nothing really to worry about."	"I think the exercise and the illness has made me value life more and I won't touch another drink again … fitness for me now is a way of life."
Competence/ achievement	"In school I was always a fast runner. I was a real, I'm really skilful at football, real good footballer."	"I had a lot of things go wrong with me, lot of, you know, sort of marriage break up and … I had a lot of failures and stuff so that made me – and I had all that on board, and it sort of spiralled out of control."	"I sort of gradually built up to it. I lost a sufficient amount of weight to be able to run again. I started off on the treadmill for about 5 minutes, I sort of built it up, then I went out for a run about quarter of a mile, a few hundred yards, and I sort of built up."	"I like to feel that buzz when you know you've achieved something."
Social support	"I started off with a friend and we gradually built up – went through the pain barrier together. Ran to Dilsley Common and both shook hands afterwards – it was a real good feat to actually do it like – thought bloody wow like."	"Well they (family) visited me when I was in hospital – visited me every day. My parents visited me every single day since I was there – give me a lot of support in that way."	"I think it was important for (Sarah and Catherine) to be there first of all. It gave me a bit of confidence. Because I was so unwell I wouldn't have had no confidence – thinking I was gonna have a panic attack."	"I exercise on my own. I used to exercise years ago with a chap but since I was unwell I've lost touch with friends. But I still exercise on my own."
Autonomy	"I didn't get any help from teachers at our school – they weren't very good and I was a real good player."	"If it wasn't for Sarah and Catherine I don't think I'd have got back into it – well, I would have got back into it but not so soon."	"In the gym it'd be, say, 50 minutes – I haven't quite mastered an hour yet but I'm working on it."	"If you're keeping fit … you can just do it cause you like doing it. You're not living in a dream world, you're actually feeling better – making yourself feel better."

Table 6.1c: Key word in context list (Ben)

	Before being unwell	Being unwell	Recovery		
Interview 1	*feeling a bit sick* *aching* *being able to jog* *smoking* *running bug* *running miles*	*living in a dream* *world walking* *laying down* *I had trouble getting up* *a way of escaping* *getting attacks all the time* *missing out*	*jogging* *running* *training* *doing* *getting* *depending on what I feel like* *working* *keeps you going* *better than* *drinking* *keeping fit* *feeling better* *making yourself feel better* *looking good* *feeling good* *nothing really to worry about* *getting fit* *exercising*	*making you think positive* *doing 10Ks* *get that good feeling back* *back into running again* *going to the gym* *getting a sweat on* *making you sweat* *feeling like I used to* *encouraging* *swimming* *thinking* *gliding* *piercing* *being having the right medication* *feeling more positive* *keeping in with it*	*feeling younger* *benefiting* *feeling good again* *trying to conquer* *improving* *building up to it* *getting my weight under control* *going beyond my means* *getting used to it* *putting minutes on* *perspiring* *losing weight* *helping me* *getting me back* *keep on going* *dying* *keeping myself fit*
Interview 2	*smoking* *taking up running*	*looking at the illnesses* *being stupid* *coming from my mind* *talking stupid* *imagining it* *going on in your head* *medication making me worse* *neglecting myself* *smoking was making me worse* *stimulating my brain* *my brain racing* *using it as a crutch* *getting stressed* *stressing you out* *suffering* *running* *doing a bit too much* *getting unwell* *overdoing it* *misinterpreting* *having a mental illness* *falling apart* *letting their life slip by* *wasting away* *getting worried*	*got everything into perspective* *start exercising again* *helping* *getting my appearance right* *shaving* *bathing* *running* *getting fitter* *being overweight* *hoping* *playing football again* *rushing around* *keeping going* *chatting*	*talking* *walking* *clapping* *thinking* *focusing* *getting round* *feeling good about yourself* *spurring you on* *doing it for charity* *trying* *going slow* *training* *burning* *timing myself* *hoping*	*floating* *gliding* *looking at the view* *flying* *swimming* *worrying* *playing football* *jogging* *enjoying it* *getting well* *incorporating* *staying well* *feeling* *asking to join* *keep going*

Table 6.1d Key word in context list (Ben)

	Before being unwell	Being unwell	Recovery	
SUSAN	*running* *smoking*	*starting* *persuading*	*exercising* *going* *getting back* *getting well* *feeling* *still happening* *encouraging* *overwhelming* *fitting it in* *scheduling* *running* *time consuming* *still continuing* *coming here* *getting on so well* *healthy eating* *moving on* *thinking* *working* *being at home* *working full-time* *keep going* *kept going*	*knowing* *being* *making a recovery* *fighting* *willing to give it a go* *socialising* *making big leaps* *moving forward* *coming here* *talking* *doing exercise* *going to football* *jogging* *swimming* *cycling* *walking* *digging the garden* *getting help* *organising exercise* *looking at beliefs* *questioning* *taking the medication*
SARAH		*getting started* *starting to exercise* *coming with you*	*coming in* *coming with you* *going into a public place* *helping* *swimming* *doing the running* *jogging* *doing a lot more* *healthy eating* *winning*	*taking more control* *having done something* *achieving* *proving to yourself* *deciding to do it* *running* *enjoying* *playing football* *seeing people* *doing the runs*
BEN			*getting more confident* *slimming* *going fine* *having a panic attack* *running*	

Table 6.2a: Time ordered matrix of key events (Mark)

	Before being unwell (>18 years previous)	Onset (18 years previous)	Being unwell	Sectioned (3 years previous)	Begins Redview Lane (7 months previous)	Present
Mental health	• No recorded problems as a child • Strong family history of mental health problems	• Referred to psychiatric services in his early twenties • Stopped eating and drinking for several days before admission • Hallucinations and "very slowed down"	• Diagnosed schizo-phrenia with major depression • Withdrawn, depressed, food refusal, severe weight loss, cognitive difficulties	• Detained under the mental health act following a single incident • Symptoms continue • Deficits in inter-personal skills noted	• Continuing symptoms thought to be controlled by medication	• "Mental health stable and well controlled with no psychotic symptoms or major depression since his transfer" • Sees himself as "recovering" • Well motivated
Treatment	• Hospitalised for six months • Receives anti-psychotic medication and electro-convulsive therapy	• Continues anti-psychotic medication • Stops medication on 3 occasions as result of unacceptable side-effects – Mark felt this led to relapse • Hospitalised voluntarily for 18 months 1 year later • Hospitalised again 5 and 9 years after onset	• Anti-psychotic medication change	• Continued self-administered anti-psychotic medication	• Continued self-administered anti-psychotic medication • Fortnightly psychology sessions	
Physical activity	• Enthusiastic footballer at school and played for local youth club	• None	• None	• None • Described as a "couch potato" by staff at residential centre	• Begins exercise sessions (2-3 mins. on bike in gym initially) • 5-a-side football • Badminton • Walking group (each once/wk)	• Continues light-moderate physical activity on 5 days/wk • Fitness and perform-ance improvements noted (15 mins. on bike)
Lifestyle	• Living independently • Took O-levels, A-levels and a diploma at college • Difficulty finding work and unemployed for four years	• Living in own flat at onset • Moved to mother's home on discharge • Unemployed	• Living in own flat • Attending day centre 2-3 days/wk • Three months work recorded 5 years after onset • No further work	• Held on remand for several months • Later moved to residential centre (in-patient ward) • Restricted from all unescorted activities	• Attends Redview Lane 5 days/wk • Engaged in woodwork, gardening, and art • Living in residential centre • No unescorted activity	• Attends Redview Lane 5 days/wk • Living in residential centre • Self-caters 3 days/wk • No unescorted activity • Plans work as gardener

Table 6.2b: Life phase matrix (Mark)

Theme	Before starting exercise	Starting exercise	Present
Mental health	"(I was) a bit slowed up, not concentrating on what I was doing."	"It (exercise) helps you to think better. It helps you to concentrate better on what you're doing when you're actually doing the exercise, the football, badminton."	"I feel a bit more with it. A bit more alert than I was." "It's (exercise) helped my mental health problem. I realise I got a mental health problem and it's coming to terms with it … but doing the exercise helps I think."
Physical fitness	"When I was in wood work used to have trouble sawing through thick wood." "I don't think that he was that fit basically." *(Simon)*	"I know I'm actually working if I start sweating. Doing the exercise properly."	"I'm a bit fitter than I used to be. Like doing the wood work – I can saw pieces of wood easier. I feel stronger in myself."
Physical activity	"I wasn't into exercise during that period – just wasn't." "I'm better at football than anything else cause I used to play a lot when I was a kid."	"(I was) lethargic, a bit slowed up. But I gradually got better, better at the exercise on the bike. Started off at about 2-3 minutes then stepped up to about 5 minutes."	"Well on the exercise bicycle I do 10 minutes. I know that I can comfortably do that. I'm OK with 10 minutes, on the rowing machine as well."
Social	"I thought he was very quiet and very wary. I don't think he had a lot to do with other people to be honest. I think he found that maybe a bit hard … just being here was a shock." *(Simon)*	"You're meeting other people that are sharing a common thing aren't you really… Got the same experience and got something to talk about."	"When he scored those goals and he was well chuffed … he just smiled. It was well noticeable … he was a little bit more sociable after the game as well… a little bit more talkative." *(Simon)*
Motivation	"I had a chat with Sarah when I was in woodwork and she suggested that I take up a bit of exercise to get a bit fitter. She said I wasn't very fit."	"I was on the exercise bicycle, I was thinking about keep going!"	"Well enthusiasm. I got the enthusiasm for it. That's important… You've got to want to do it. That's important."
Achievement	"I used to play pretty well I thought when I was a school. I wasn't in the school team – I wasn't good enough for the school team."	"I think when he started, when he played he was very conscious he was making mistakes and didn't score or anything like that." *(Simon)*	"I have a sense of satisfaction that I actually played. Because I was doing something with my time. That's important I think – to actually be able to use your time properly."
Competence	"I was starting it afresh."	"His co-ordination and hitting the shuttle – it was OK but it wasn't brilliant. And it was like he was rooted to the spot – very static." *(Simon)*	"His badminton has improved so much. He's moving about the court a bit more and he's reaching for shots – that's really noticeable."*(Simon)*

Table 6.2c: Key word in context list (Mark)

Doing things	Exercise things		Social things
Gardening	*Walking group*	*Controlling the football*	*Sharing an experience*
Digging	*Rowing machine*	*Passing it (ball)*	*Sharing a common thing*
Doing woodwork	*Walking*	*Using your alertness*	*Doing the same thing*
Doing something with my time	*Doing the exercise*	*Seeing a fellow player*	*Talking*
Doing something that'll do me good	*Playing*	*Bring your racket back*	*Saying*
	Thinking	*Concentrating*	*Concentrating*
Sawing	*Starting it afresh*	*Sweating*	*Meeting people*
Being able to concentrate	*Keep going*	*Exercising*	
Coming to terms with it	*Using your legs*	*Enjoying myself*	
Using your time	*Heart pumping*	*Using the bike*	
	Doing something good	*Scoring goals*	
	Playing football	*Playing good defensively*	
	Trapping the ball	*Helping*	
	Bringing it (ball) down	*Keeping that up*	
		Don't start overdoing it	

Table 6.3a: Time ordered matrix of key events (Colin)

	Before being unwell (>15 years previous)	Onset (15 years previous)	Relapse (7-10 years previous)	Redview Lane referral (7 years previous)	One year previous	Present
Mental health	• No childhood developmental problems • No recorded psychological difficulties in adult life	• First hospital admission • Diagnosed with schizophrenic illness with marked negative symptoms or a depressive illness	• Four further hospital admissions totalling more than six months • Diagnosed schizo-phrenic symptoms with marked mood com-ponent or an affective disorder; "abnormal grief"; paranoia	• Psychotic symptoms settled • Prominent negative symptoms • Depressed mood • Brain impairment • Low motivation	• Stable mental state • No psychosis • No depression • Low motivation remains	• Motivation improved somewhat • No further mental health problems
Physical activity	• Keen football player at primary school • Regular football player in local amateur adult league for 5-6 years • Independent football training • Cycling and swimming	• Stopped all physical activity on becoming unwell	• No recorded physical activity at admission • Began walking in hospital • Began using gym in hospital	• Weekly football group • Swimming weekly • Weekly badminton group • Continued walking	• Regular weekly participation in football, walking, swimming and badminton groups • Social skittles group • Some involvement with local cricket club	• Regular weekly participation in football, walking, swimming and badminton groups • Social skittles group
Treatment	• None	• No treatment recorded	• Anti-psychotic and anti-depressant medication • Electro-convulsive therapy • Discharged on depot (slow release) medication	• Anti-psychotic and anti-depressant medication continues • Psychological therapy • Twice weekly visits from community care worker	• Continuing anti-psychotic medication • Care visits stopped	• Continuing anti-psychotic medication • Once weekly care visits
Lifestyle	• Living in parents' home • Worked as a labourer for 2 years • Worked as a waiter for several months • Last recorded employment in light industry • Travelled widely	• Returned to parents home following brief hospital admission • Did not return to work	• Discharged to a residential centre • Not working	• Living at mother's home • Reported as "eating and sleeping well" • Not working • Five days per week at Redview Lane but attendance poor	• Living in shared flat in the community • Two days per week at Redview Lane • Three days per week on work scheme • Poor attendance • Reported as "reasonably self sufficient"	• Stops attending Redview Lane except for physical activity groups (football, swimming, badminton, walking)
Weight	• 12 stones	• Not recorded	• Lost weight in hospital • Began to gain weight on discharge	• "Somewhat over-weight" • Reached 19½ stones	• Overweight but had lost a few pounds	• Still overweight

Table 6.3b: Life phase matrix (Colin)

	Before being unwell	Being unwell	Resumption of physical activity	Recovery
Competence/ achievement	"I think cause I was talented I think that's what it was… I first started when I was young – 11, 12 or 13. I played for the juniors and I scored one goal. I made two appearances but I scored one goal and I always remember that."	"I was just bored in there (hospital). Nothing to do… I was so bored I didn't hardly do nothing. I just stayed in the ward and just went to bed and that was it."	"I'd done something - I'd participated in something. It (exercise) was something out of the blue that came to me and I just had a go. I just attacked it in a normal way and, I appreciated what I'd done in the end. I got something out of it."	"It (exercise) brings all your talent out as well like … your ability in other words. It brings the, say, the cleverness out of you … and I get satisfaction from that."
Social relations	"I used to play football over the park, used to play Sunday mornings with my friends … And then Sunday afternoons again, another match. Then I started playing in the league … It just went from there really."	"Family as well, friends, they supported me since I was ill really … used to come round, make sure I was up or I went out with them (and) they asked how I was."	"I started talking and got out of my shell … It was important to like to talk to people – communicate with people … Once I started talking to people it gave me more confidence."	"I feel supported with other people here. Its people that I know mainly. Especially with the football team, its people that I never knew before but I got friendly with – made good friends – and we all just participated in sport."
Autonomy	"I used to train over the park on my own... Just to keep fit really. Just preparing myself."	"I did do exercise, I lost a lot of weight apparently. I did go to the gym."	"They (Sarah and Catherine) made a programme for me and I started … I think they asked me what I wanted to do, but they just told me what was available and what I could fit in. Like a school programme."	"So all that was on my own part really … I done it myself, started to talk to people myself."
Well-being	"Just anxiety, stress, work, everything like – just done too much … I just had a breakdown and that was it really."	"Over at my mother's house I used to go to sleep a lot. I just switched off like. I used to go in my own little synchronisation sort of thing … I used to sleep for hours and hours."	"When I took (Prozac) it gave me a lift. But when I was doing exercises it was similar to that. It gave me a lift similar to what I was on with the Prozac."	"I'm optimistic. Cause you don't know what's gonna happen the day after do you? I could have a heart attack or something – anybody can … you gotta make the most of the day you're doing now."
Physical activity	"I made about one hundred appearances in goal for the team." "Football … always gave me a buzz."	"I stopped football when I was unwell … cause I was pretty low."	"Well, I was back. Once I got in the gym I used to go and do those exercises on the bars, the weightlifting and the bike … I used to get a buzz from that. It gave me a lot of confidence."	"Until I get an injury or something I don't want to stop (exercise) really. There's always cricket or something you can play when you get older."

Table 6.3c: Key word in context list (Colin)

	Before being unwell	Being unwell		Recovery	
COLIN	*playing in goal* *shooting practice* *preparing myself* *kicking a ball* *playing in the league* *going down the wing* *playing football* *riding a bike* *working* *hitting the ball*	*checking you out* *taking you in* *checking up on me* *feeling low* *getting up in the morning*	*going different places* *going other places* *started playing again* *going to the hospital gym* *getting better* *going to gym* *going swimming* *started talking* *doing some activity* *doing exercises* *doing routine work* *going to OT* *doing more OT*	*eating* *cooking* *back playing them again* *kept me going* *meeting new friends* *just doing* *not so boring* *(not) sticking to the one game* *keep it going* *looking forward to it* *doing my tea* *going back* *taking each thing in its stride* *keep my enthusiasm going*	*keeps me going* *keeps the adrenalin going* *relaxing* *keep being active* *getting better* *looking quite bright* *keep playing cricket* *walking* *swimming* *no good sitting back* *started working* *participating in sports* *going to funerals* *doing jobs*
LYNN	*doing sport activities*	*he wasn't doing anything* *not doing very much* *going back to work* *being lonely* *befriending*	*doing diet stuff* *trying to sort out* *managing finances* *phoning people* *owning his own house* *living* *buying some furniture* *going to healthy eating* *getting the place* *going to the pub* *thinking about himself* *coming here* *meeting up with other people*	*going to the football team* *being somebody* *coming somewhere* *getting up* *taking him to shops* *sorting out his flat* *getting involved in the sport* *doing volunteer work* *opening up* *not taking his medication* *recovering* *having contact*	*doing the football* *cutting down (medication)* *stopping medication* *getting more involved* *choosing what he wants* *starting a volunteer job* *teaching* *doing something of value* *chatting with the lads* *doing the walking group* *getting in with the football team* *getting in with the cricket team*
SIMON	*playing*	*hadn't been doing anything*	*achieving things* *wheezing* *finding it hard work* *running* *taking him to the gym* *structuring* *organising skills* *getting back into things*	*continuing coming* *kept coming* *talking* *pushing* *confidence coming out* *expressing himself* *structuring his day*	*enjoying it* *achieving something* *achieving* *always chatting* *walking* *swimming* *going to the football*

Table 6.4a: Time ordered matrix of key events (Shaun)

	Mental health	Treatment	Lifestyle
Before being unwell	• No childhood problems • Some family history of mental health problems		• Enthusiastic footballer at school and for local club • Described as "alternative" and "a loner"
Onset 5 years previous	• Onset in late teenage years • Withdrawn, restless, distracted thoughts for 3-4 months • Referred to psychiatric services by GP • Some improvement after 1 month • Serial remission and relapse	• Prescribed anti-psychotic medication (olanzapine) • Assigned community psychiatric nurse • Inconsistent medication compliance • Family and cognitive therapy	• Attending college and working part-time • Living with parents • Became reclusive • Eating problems
4 years previous	• Diagnosis of paranoid schizophrenia • Marked negative symptoms • Some improvement noted • Very poor social skills	• Increasing medication dose • Day therapy • Medication changed (risperidone) • No treatment for several weeks	• Isolated and bored • Some swimming and walking noted
Hospital 3½ years previous	• Deterioration of mental health • Risk of self-harm noted • Moderate-severe scores (39) on psychiatric rating scale (BPRS) decreases over next 6 months	• Original medication restarted (olanzapine)	• Admitted to secure unit for several weeks • Doing very little and getting up late • Playing some football with Simon
Redview Lane 3 years previous	• Diagnosis of schizophrenia with marked affective symptoms • "Severe and continuing underlying illness" recorded • Nervous and "very quiet, responds only when spoken to" • Concentration and motivation problems	• Medication continues • Day therapy continues	• Moves to in-patient residential ward • Begins full-time at Redview Lane (patchy attendance) • Playing some football • Started gym and volleyball (sporadic attendance) • Begins occupational and creative activities • Eating problems continue
2 years previous	• Diagnosis chronic schizophrenia illness • Mental health stable • Some remission of positive symptoms • Improving social skills • Concentration difficulties	• Medication changed (clozapine) • Reliably self-medicating • Begins fortnightly psychology sessions	• 98-100% attendance at Redview Lane • Regular physical activity: gym, football, walking, table-tennis (3 per week) • Starts college course • Some physical health problems noted, poor diet
1 year previous	• Continuing improvements noted in general – more assertive and motivated • BPRS score improved (15)	• Medication dose increased • Psychology continues • Feels tired (Shaun attributes this to medication)	• No problems in residential ward for >2 years • Moved into community supported housing • Weekly football (no record of other PA)
Present	• Continuing general mental health improvements noted	• Medication continues • Psychology continues	• Increasing football involvement in community • Increasing responsibility • Regular PA continues

Table 6.4b: Key themes (Shaun)

Theme	Comment
Achievement	"I actually one the award for manager's player of the year … I was quite chuffed." "I was so keen to win one game … if we had beaten them we'd have got to the semi finals and possibly the finals at Stamford Bridge … And that would have been brilliant to get to that. To lose was a bit (*pause*) felt a bit dejected … Yeah, I mean, I wouldn't have minded if we'd have got there and lost. But to play somewhere like that would be brilliant you know."
Adoption of physical activity	*Sarah*: "So if we can engage them – we might start to engage somebody at a very low level and then you gradually build it up." *David*: "With Shaun that engagement was…?" *Sarah*: "Football. Football."
Affiliation	"I travel, sometimes go up to London, cause the team's actually called *(names team, affiliated to city league team).* So we wear the City kit, just one of the old ones. And we get to play like um Chelsea, Chelsea disability team, things like that – it's quite good really."
Autonomy	"Fairly recently, I think someone just mentioned it why don't we get a 5-a-side. So I sort of decided I'd like to, I'd like to be involved with that. I tried to find out about it… I've had quite a bit of help. But I've done quite a lot of it myself, yeah."
Importance of football	"I'd love to be able to do that though for a job – to be able to play football for a living. Be able to train every day – be brilliant really." *Simon:* "It's important to him this football and that he achieves it. And if it didn't happen I think he would be devastated – very disappointed. And he's – alright he doesn't have a lot of insight of how long it takes to do it and all that… but, he's, you know, it's his goal and he wants to achieve it – a big thing for him."
Motivation	"I'm not actually doing that much (exercise) at the moment cause the football season, 11-a-side season's finished." "I quite enjoy football whether it's competitive or not. *(Pause)* If you haven't got that structure of playing you wouldn't sort of get round to playing that much would you?"
Previous physical activity	"I played also for the local 1st team for about 5 or 6 years." "I used to cycle to college everyday … it took about 25 minutes."
Recovery	*Simon*: "Well, I think at the moment I'm getting the feeling it's been his main thing – the football. But to get him there I think it was a combination of everybody, like the (*occupational*) stuff like that, the structural things."
Responses to physical activity	*David*: "Do you think football makes you a different person in any way?" *Shaun*: "I think it's helped me a lot. I feel a lot more positive in myself. I've just been trying to organise this football league thing and stuff has been sort of quite beneficial to me really. Something to think about and something I get quite excited about to some extent you know."
Social support	*Simon:* "Well, through the OT's he's gone out and got a health promotion grant. But he needed a lot of prompting to do that – spent a lot of time doing it. It's like sometimes hitting your head on a brick wall sometimes. But he got there!"